.

EQUITY VALUATION OF INDITEX

Gonçalo Surrador do Couto

152412033

Advisor: Dr. José Carlos Tudela Martins

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Research Note

The fair value for Inditex's share price is targeted to be 117.62€, which reflects the strong potential of the company in the last years supported by its strategy and unique business model. At 21/02/2014, Inditex's share price was 106€, which makes the research note to have an upside of 11%.

This considerable success and the above average performance become even more relevant if all the risks that Inditex is facing at the present time are taken into account, mainly due to the crisis environment in Europe (region that represents 70% of its global sales). Adding to that, and regarding expected investments in the future, the recommendation for the Inditex stock is to buy.

Inditex is one of the most important companies in the retailing and apparel industry and owns 8 extremely well known brands: Zara, Pull and Bear, Massimo Dutti, Bershka, Stradivarius, Oysho, Zara Home and Uterqüe, which allows for brand diversifications and, as a direct consequence, to attract different market segments and age groups.

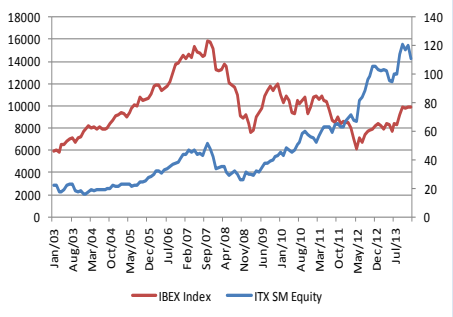
Inditex's revenues in 2012 were nearly €16 billion and they have shown a consistent growth during the last years, presenting an average of sales growth of 15% per year. Gross profit margin has also been growing during the last years and in 2012 has reached a peak, at a value of nearly 60% of the company's revenues.

Inditex's strategy has relied both on brand expansion as a way of reaching different targets and on international consolidation as a global brand. Currently, Inditex is present in 86 different countries which reflects, again, its importance in the worldwide apparel industry.

BUY	11% Upside
Fair Value	117,62€
Bloomberg ticker	**ITX SM**
Share Price	106€
Market Capitalization	73.313.533€
Free Float	36%

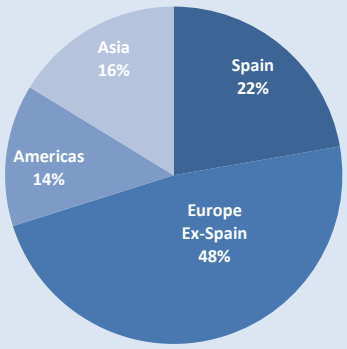
Source: Bloomberg and own analysis

Share Price Performance



Source: Bloomberg and own analysis

Sales by region



Source: Inditex's annual reports

Even though we are experiencing a crisis environment, mainly if we take into account that 70% of Inditex's sales are in Europe, Inditex stock prices have performed well on continuous basis.

When comparing Inditex with the Index it is listed in - IBEX 35 - one can see that Inditex has been outperforming the benchmark and this has happened for every year but one, 2007.

P/E		
	2013	2014
Peer Group	22,85x	28,53x
Inditex	27,25x	26,62x
EV/EBITDA		
	2013	2014
Peer Group	14,34x	12,91x
Inditex	15,36x	15,41x

Source: Bloomberg and own analysis

Investment strategy

Since the very beginning Inditex's strategy has been long term focused. During the last years the company has been creating value relying not only in its own growth but also on acquisitions. Inditex is now one of the few companies that benefits from the fast growth of online sales in the retailing sector. Adding to that, Inditex expects to open between 8% and 10% new stores per year. Inditex's sales depend not only in the new openings but also on the GDP. Given this, the sales growth is expected to be on the double digits range in the future.

Additionally, a slight decrease in the cotton price could increase the company's share price since it represents around 60% of the Cost of Goods Sold.

WACC	6,49%
Equity	100%
Debt	0%
Ke	6,49%
Rf	1,66%
Beta	0,58
MRP	8,30%
Kd	0,00%

Source: Bloomberg, Inditex's annual reports, and own analysis

Risks

Inditex's fair value is facing a few risks. As an example, changes in the cotton price can directly affect the world economy and international markets, and as a consequence Inditex's strategy. This, in turn, would affect the company's share price, as it was already stated before.

The new store formats can present unexpected results, and the store expansion strategy can take longer than that in the past. Another risk the company is facing would be the fact that it is currently present in 86 different countries, which results in a high degree of exposure to different currencies. Currencies have shown historically that they are quite hard to forecast. Finally,

one must consider the industry in which the company is included, the fashion industry. Fashion trends can change rapidly, as a result of changes in consumer preferences. This is a critical factor to emphasize when the company is expanding to various countries and markets a situation that Inditex finds itself in.

Main valuation

This report is the basis of a large investigation on Inditex, its main competitors and the industry in which the company operates. All the data used to build this report is public and it takes into consideration how all the possible changes for the next few years can affect the company's share price. The results come from the two most used valuations models: the Discounted Cash Flow (DCF) and Multiples Valuation methods. Even though each methodology has delivered different results, the assumptions have been accurately chosen so as to achieve the most consistent valuation possible.

Abstract

The market is not always able to reflect a stock's fair value. Nevertheless, this is not a synonym of market inefficiency given the fact that prices will eventually converge to their real values. In order to get a precise valuation of the company and its fair value, one should perform a valuation and there is a wide range of valuation tools available that can be used to evaluate a company. I will base my analysis of Inditex, one of the major worldwide players in the retail and apparel industry, on two valuation methodologies: the Discounted Cash Flow (DCF) and the Multiples Method. The valuation resulted in a BUY recommendation, supported by a 117.62€ share price.

In the end, a comparison with an Investment Bank report is made, allowing for the assumptions used to be tested. Although its recommendation is NEUTRAL, Citibank finds the firm undervalued and targets the price to 120€ per share.

Acknowledgments

This thesis clearly shows up to be the last step of my Master's degree in Finance. Writing it helped me to improve skills that I believe are of undeniable importance for my future.

Firstly, I would like to express my gratitude to Professor José Carlos Tudela Martins, my advisor, for his immediate response and absolute availability, support, and helpful feedback during the whole development of this project. It allowed me to improve not only my work but also to keep me motivated to deliver a high quality project.

Secondly, I would like to thank to Filipe Rosa, equity analyst from Espírito Santo Investment Bank, Equity Research team in Lisbon for the valuable knowledge and know-how given during the whole process.

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1. Introduction

Investors have long searched for a method that would allow them to maximize returns while minimizing risk. While several allocation models have emerged in the literature in the past decades, like Markowitz (1952), the importance of accessing firm value has likewise and even more importantly grown to become one of the most important calculations performed in Finance.

Besides being the basis of all investment transactions when it comes to the investor side –without a proxy for firm value it would not be possible to arrive at a forecast of stock prices – it has become equally important not just as a way of evaluating future cash flows but also in valuating projects, investment decisions, products or divisions. It not only measures a firm's current performance but it also allows for forecasts of future performance and it is key in cases of Mergers and Acquisitions, for instance, or in the pricing of Initial Public Offerings. One can, thus, say that it presents a financial importance and it is also strategically vital given that it influences the future behavior of companies.

Without the knowledge of how much a firm is worth, for instance, it would not be possible for investors to base their financing decisions and allocate their assets into one that maximizes their return. Similarly, when it comes to the firm's side, evaluating a project is a crucial operation that companies perform every day and allows for future growth and profit.

It is not possible to stress how important equity valuation is today. Even using a wide selection of assets like cash flows, options or dividends or even relying on peer information, it is possible nowadays to access value and compute a firm's stock price as a way of providing information to all participants of market transactions.

In this thesis, a wide array of valuation methods starting from the Discounted Cash Flow methodology to Multiples valuation will be performed as a way of arriving to a value for Inditex's stock price. Even though there is not a consensus in the literature to which valuation methods are more effective, by using several valuation methods it was possible to arrive at an accurate prediction for Inditex's stock price and value.

Additionally, a sensitivity analysis will be performed, where both WACC and growth rate are going to be changed in order to get to different outcomes. Finally, I will compute the Value at Risk to verify the probability of the stock price falling 1%, 5% or 10%.

2. Literature Review

It is not at all times that a company's market value corresponds to its fair value. Nonetheless, this does not mean that markets are inefficient, particularly since prices will eventually converge to their fair

value. In order to accurately get a company's fair value, it is required that a valuation is carried out. There are several valuation methodologies: Discounted Cash Flow (DCF), Multiples valuation, and other approaches such as The Economic Value Added and the Option Pricing Model. Within the DCF model one can still identify a few different approaches: Equity valuation, the Dividend Discounted Model (DDM), Firm valuation, the Adjusted Present Value approach, and the Capital Cash Flow Model, which will be discussed in further sections.

2.1. The Discounted Cash Flow

The DCF methodology is one of the most widely used approaches to evaluate the present value of a company, division, product, or project based on the cash flows it generates. A requirement is that the analysts should be specialists and fully understand the business, the firm's or cash flows' risk, as well as the cash flows' sustainability, argues Damodaran (2002).

The value of the firm according to the DCF method is defined as the present value of its assets discounted at a given discount rate. It is therefore crucial that the analysts verify the company's essentials and market perceptions in order to better predict the cash flows, however the choice of the discount rate to be applied is also vital. It ought to be thoroughly chosen, given that it is a reflection of the risk of the expected cash flows, as represented in the DCF formula shown in equation 1 below.

$$Value = \sum \frac{CFt}{(1+r)^t} \quad (1)$$

A consideration that arises from this formula is that one should expect to have a higher firm value for companies with more predictable cash flows in opposition to more volatile ones, as stated by Damodaran (2002). Additionally, the author shows that the used intrinsic value is never the real one, since private information causes a distortion in the assumptions based on the public information.

The DCF model has a few limitations and as Luerhman (1997) argues, in order to have an accurate valuation, the method should not be applied to companies with neither tax positions or fund-raising strategies nor very complex capital structures.

Damodaran (2002) states that depending on the different types of assets, the also the cash flows will also vary. For instance, if one is taking stocks into consideration, the cash flows would be dividends; if the case is of a bond, the cash flows come from the coupons and the face value; however, if a real project is being analyzed, the cash flows are then the after-tax cash flows. As mentioned earlier, the discount rate will also be a function of the risk of the expected cash flows.

The different types of DCF models can be aggregated in five major sections: Equity Valuation, Dividend Discount Model, Firm Valuation, the Adjusted Present Value (APV) Valuation, and the Capital Cash Flow

Model. These methods take into account the cash flows and the discount rate, which differs from one model to another.

2.1.1. Equity Valuation

The Equity Valuation model consists of discounting the cash flows to the equity at the specified cost of equity. In this case, the cash flows to the equity are the residual cash flows after meeting all the expenses, reinvestment needs, tax obligations, interest, and principal payments. Concerning the discount rate - the cost of equity - it refers to the rate of return required by the shareholders of the company. Luerhman (1997) argues that the Equity Valuation model has more complete cash flows, since the DCF cash flows and discount rates are simpler. It is a more specific valuation method when compared to the APV or the valuation of options, since it needs to include the leverage effects in both cash flows and discount rate. In this model the fair value of the firm is given by equation 2, represented below.

$$Value = \sum \frac{CF\ to\ Equity\ t}{(1+ke)^t} \quad (2)$$

2.1.2. The Dividend Discount Model

The Dividend Discount Model (DDM) is one special version of the Equity Valuation model, where the fair value will be the present value of the expected dividends. Damodaran (2002) states that when investors buy stocks there is an expectation to receive dividends during the time they hold it and a final price for the stock at the end. Therefore, Farrel (1985) argues that this model should be used to define the stock's attractiveness and also of the stock exchange it belongs to. Moreover, Farrel (1985) states that in this method it is likely to see how the stocks are affected by inflation rate changes and interest rate variations. In the past, the main total returns received by investors were constituted by dividends, according to Foerster and Sapp (2005).

Ang and Liu (2004) argue that the DDM does not take into account any of the stylized effects: time variation in the market risk premium, factor loadings or risk free rates. Through the computation of a variance decomposition of the discount rates, investors should be more concerned with the impact of time-varying interest rates and risk premiums for discounting cash flows. Regarding long horizons, the time variation in risk free rates or betas is more important. The effects of time-varying risk premiums, risk free rates, and betas are of crucial importance for any valuation.

2.1.3. Firm Valuation

In this situation, and differently from Equity Valuation, Firm Valuation uses the cash flows to the firm instead of to the equity, meaning that the cash flows under consideration are the residual cash flows relating to operating expenses, reinvestment needs, and taxes, but including any payments to either debt or equity holders. In this model the Weighted Average Cost of Capital (WACC) is used as the discount rate in order to account for the advantages and disadvantages of the capital structure, meaning that it includes both costs and benefits from tax shields. A further discussion on the Weighted Average Cost of Capital is presented in section 2.6.5. The value of the firm comes, as a result, through the following formula:

$$Value = \sum \frac{CF\ to\ Firm\ t}{(1+WACC)^t} \quad (3)$$

2.2. The Adjusted Present Value method

The APV model does not seem to arrive at a consensus when it comes to the authors in the literature. Luerhman (1997) starts by arguing that the DCF model is no longer the most accurate methodology to evaluate companies and that business schools and books still teach it because it is standard. He defends that the APV model is now the best, most reliable and versatile model of firm valuation. The APV model splits the company into different parts, evaluates them and then sums up the parts again. Accordingly, and as mentioned by Damodaran (2002), the first step is to assume that the company is only equity financed and, thus the equity is evaluated first and separately. The next step in the evaluation is to add the profits or losses given by the debt part of the company. Finally, the bankruptcy costs have to be taken into consideration. Damodaran (2002) argues that, with this separation, the APV clearly highlights the benefits and costs of debt given that on the one hand the increase in debt generates tax shields and on the other hand it increases the bankruptcy costs. Therefore, the value of the enterprise according to the APV model arrives from the following formula:

Value = Value of all-equity financed firm + PV tax benefits + Expected bankruptcy costs (4)

There is one clear advantage in using the APV model: APV works for most valuations, even in cases where WACC does not. This is due to the fact that it requires less restrictive assumptions. Also, the APV model provides investors with much more information than the DCF model since the APV is not just giving the final fair value but also the different parts where the value stays. On the other hand, Luerhman (1997) argues that the DCF model is a lot easier to use than APV since it uses only one discounting operation. Moreover, there is another disadvantage stated by Damodaran (2002) which is

the fact that investors tend to ignore the probabilities of default and bankruptcy costs because they are considerably hard to estimate.

2.3. The Capital Cash Flow Model

Goedhart, Koller, and Wessels (2005) state that the Capital Cash Flow model is very similar to the models discussed before but with the particularity that the interest tax shields are summed up to the free cash flow and these are discounted at the unlevered cost of equity. As a result, the enterprise value is given through formula 5.

$$Value = PV\ (Capital\ Cash\ Flows) = \sum \frac{FCFt+ITSt}{(1+ku)^t} \quad (5)$$

Since future cash flows are predictable, all the models mentioned earlier are reliable and considerably simple to use. Problems appear when this does not happen which is the case of firms in trouble, cyclical firms, firms with unutilized assets, firms with patents or product options, firms in the process of restructuring, firms involved in acquisitions and private firms, for instance.

2.4. Multiples Valuation

As stated beforehand, there are several methods for valuing projects, divisions, and companies, although senior executives and managers see the DCF model as the most accurate and flexible one. However, the DCF model takes into consideration several variables such as the company's Return On Investment Capital (ROIC), the growth rate, and the Weighted Average Cost of Capital (WACC), which might make the computations somewhat difficult if they are not available. Another drawback with this method, other than the fact that it should only be used to evaluate more complex business structures, is that it relies on several assumptions and whenever the case of mistakes in these assumptions arise, is can lead to incorrect valuations. Nonetheless, in order to make the forecasts more useful, some authors believe that a company's multiples should be compared to the multiples of other corporations. This kind of analysis allows helping the company to check its cash flow forecasts, its own performance against that of its competitors' or even to compare its strategy to the main drivers of its industry. Goedhart, Koller and Wessels (2005) argue that the reliability of the valuation can be improved by choosing companies within the same industry. Fernandez (2002), on the other hand, states that multiples valuation is very useful but should not be carried out on its own and instead be supported by other valuation methods.

The setback of using the multiples method has been the fact that they have been historically misunderstood and misapplied. Goedhart, Koller, and Wessels (2005) mention that one of the problems presented with the multiples valuation resides in the fact that most analysts do not accurately apply it

and fail applying factors like the growth rate, Weighted Average Cost of Capital (WACC) or Return On Invested Capital (ROIC). Managers often use the industry average, although the fact is this usually not the best to make use of since even within the same industry companies may have very different expected growth rates, Returns On Investment Capital and capital structures. Therefore, a peer group should not be selected by relying on the industry as a whole. In order to get an accurate peer group, indicators such as capital structure, growth rate, cost of capital and profitability must be taken into consideration. There are several lines of thought in the literature in what concerns the formation of peer groups. Foushee et al. (2012) states that the peer group should be constituted of companies from the same market and subject to the same macroeconomic events. Damodaran (2002), for instance, does not agree and argues that the peer group should be based on similar potential growth, risk, and cash flows.

There are three setbacks when evaluating a company with multiples. Firstly, expectations regarding the ability of each company to create value are different and thus only companies with similar ROIC and growth rates should be chosen, as Goedhart, Koller, and Wessels (2005) state. Secondly and likewise stated by the same authors, the use of multiples can lead to different conclusions. Lastly, depending on the contexts, multiples can either be very useful or meaningless.

In order to make accurate use of multiples, Goedhart, Koller, and Wessels (2005), argue that there are four basic principles that every company should take into consideration: the use of peers with similar ROIC and growth projections, forward looking multiples, enterprise multiples, and the adjustment of enterprise value multiples for non-operating items. Liu, Nissim, and Thomas (2002) share the same opinion and argue that the multiples valuation should be based on the forward earnings in order to get a more precise explanation of stock prices.

Finding peers with similar ROIC and growth projections is not an easy task. Occasionally, companies list their main competitors in their annual reports. The majority are found by looking at the company's specific industry but this is often a wide number of different companies with extremely different multiples. These differences amongst the companies' multiples arise due to the fact that some enterprises have economies of scale, products of higher quality than its competitors, better access to the customers or to financing. Other than that, the products that companies sell, how the companies generate revenues and profits, and their growth rates also reflect different multiples. At last, and after taking all these parameters into consideration, the peer group should be smaller and consequently more accurate to give a better perspective of the industry that the company finds itself.

Empirical evidence tells us that the computation of the multiples should be based on forecasts rather than historical data given that they are more precise. But whenever there are no reliable forecasts

available the latest available historical data should be used. Also, the one-time events should be eliminated.

The use of the enterprise value multiple to EBITDA is one of the alternatives to the widely used Price-Earnings ratio. Firstly, because the P/E ratio is affected by the capital structures and, on the contrary, the EV/EBITDA multiple is less vulnerable to changes in the capital structure. Secondly, and since P/E ratio is based on earnings, it can be affected by one-time events.

On the other hand, as the EV/EBITDA hides non-operating items, it should be adjusted by:

- Excess cash and other non-operating assets - As the enterprise value should not contain excess cash, the non-operating assets have to be separately evaluated;
- Operating leases - In order to have an accurate EV/EBITDA multiple, the value of the leased assets should be added to the debt and equity in market values. Also, the implied interest expense should be added to the EBITDA since these sums are not of the same magnitude;
- Employee stock options - In order to have the most precise EV/EBITDA multiple, one should add the present value of all employee grants currently outstanding and next subtract the new employee option grants;
- Pensions - In order to have the real value of the enterprise, the value of pension liabilities should be added to it.

There are also other multiples besides the ones mentioned before that are used exclusively for specific situations. For instance, to evaluate different companies, the Price-to-Sales multiple should be appropriate. The same happens with the enterprise value-to-EBITA multiple, where besides the assumption of similar companies having similar returns on incremental investments and growth rates, it is assumed that companies have similar operating margins. Additionally, Goedhart, Koller, and Wessels (2005) state that ratios built on enterprise values are more accurate since they are less vulnerable to capital structure changes. Another point of view is mentioned by Liu, Nissim, and Thomas (2002), where they state that EBIT and sales do not have as interesting performances as the adjusted EBITDA.

As mentioned before, another widely used multiple is the Price-to-Earnings (PER), which is easier to use in cases of valuations of companies in different cycles. This means that it is more flexible than other multiples given that they allow for the expected growth rate to vary in different companies.

Beaver and Morse (1978) state that the Price-to-Earnings (PER) multiples identify momentary aspects of the actual earnings and can predict the future ones. Goedhart, Koller, and Wessels (2005) disagree and say that the PER ratio is usually misapplied because non-operating and non-recurring items are

fixed in the earnings figures. Regarding new companies' valuation that normally have losses and relatively low sales, a good tool would be non-financial multiples that compare the company's value to non-operating statistics, such as the number of a website's visitors or the number of subscribers. Nonetheless, if it is not possible to convert the subscribers or the visitors into either cash flows or profits, the nonfinancial multiples are is useful at all and therefore a multiple built on financial forecasts would provide better and more reliable results.

2.5. Other approaches

2.5.1. The Economic Value Added

The economic value added is the real value created by an investment and is computed through the following formulas represented below.

Economic value added = (Return On Capital Invested –Cost of capital) x Capital invested (6)

Economic value added = After tax operating income – (Cost of capital x Capital invested) (7)

The purpose of this method is to highlight the owners interest since the cost of capital is their reward for the investment made in the company. Timo and Virtanen (2001) say that in normal circumstances the economic value added is indifferent to its cost of debt factor but not to its cost of equity component.

Economic value added has been one extension of the net present value method and therefore a company or project can be evaluated through equation 8.

$$NPV = \sum \frac{EVAt}{(1+kc)^t} \quad (8)$$

2.5.2. The Option Pricing Model

There are some particular situations in which the DCF model does not work properly, such as options. Some analysts use the DCF with special clauses to evaluate opportunities. Frequently, this results in strategic options being undervalued since the DCF model is discounted at lower rates than regular investments, as Luerhman (1997) argues. In other cases, analysts have started to use the Option Pricing Model instead of the DCF. An option is a right that can be exercised or not, at the option of the option holder (purchaser), linked to an underlying asset with a strike price, allowed to be exercised until the expiration date. The option's payoff comes through the difference between the asset value and the exercise price.

In order to evaluate the fair value of an option, its determinants must be taken into consideration:

- The current value of the underlying asset - Since the option value varies with the value of the underlying asset;
- The variance in value of the underlying asset, which means the higher the variance in the underlying asset, the higher value of the option because it has the potential of gaining more value with large price movements for both calls and puts;
- The dividends paid on the underlying asset because each time dividends of an underlying asset of the call option are paid, the value of the option decreases;
- The strike price of the underlying asset, since the higher the strike price of a call option, the lower value of the option;
- The time to expiration of the option, for both calls and puts. The longer the time of an option the greater the value because there is a bigger range of time to exercise the option;
- Finally, the riskless interest rate corresponding to the life of the option. Besides being a cost of opportunity, the higher the interest rate, the greater value of a call option because it is a cost that does not have to be paid.

The most used models to evaluate options are the Binomial and the Black & Scholes models, which find the option's value through a portfolio's replication, based on the underlying asset and the risk free rate. As Damodaran (2002) states, these models are also used to evaluate other assets besides options but with similar features that could not be evaluated in traditional methods. Luerhman (1997) argues that even though pricing models are very useful they should not be used as the only valuation method but instead as a supplement to other methods such as the Black & Scholes. Even though Luerhman (1997) states that this is his favorite method, he also presents some disadvantages to it as the difficult application to corporate problems and the fact of being necessary more time to learn it which makes it as a result, a more expensive method.

2.6. Other considerations

2.6.1. Present Value of tax shields

One of the advantages of using debt is the appropriation of tax shields. In order to get the present value of tax shields and obtain the real effect of the financial side effects, and as mentioned earlier, it is crucial that the discount rate computed is an accurate reflection of this. Amongst the authors, however, there is no consensus concerning the use of the discount rate. While some say that it should be just an interest rate associated with the tax shields, Modigliani and Miller (1985, 1963) argue that the risk-free rate should be the discount rate to use in tax shields. Among Damodaran (2002), Goedhart, Koller, and Wessels (2005) and Luerhman (1997) there is a consensus where all of them state that the cost of debt should be the discount rate used since it comes directly from debt and it should be exposed to the same

risk level, thus providing to be a reliable proxy. Fernández (2004), on the other hand, points out the need to distinguish between the value of tax shields and its present value, and argues that the value of tax shields refers to the difference between the present value of taxes of the unlevered and levered companies.

2.6.2. Terminal Value

In a company's valuation it is known that often the company cannot maintain its growth rate in convenient levels forever. As it grows, it becomes harder to keep high growth rates. Also, most companies do not last forever and there will be the need to liquidate the company at some point in time. In order to introduce the liquidation value in the firm valuation, the terminal value of the company has to be computed. Since the cash flows are infinite, they should be calculated for the years that the company will last and, afterwards, this should be summed to the terminal value. Therefore, the company's value is calculated through equation 9.

$$Firm\ Value = \sum \frac{CFt}{(1+kc)^t} + \frac{Terminal\ Value\ n}{(1+kc)^n} \quad (9)$$

Analysts should give more importance to the breakdown of this variable rather than spending excessive amount of time on the next years' forecasts, as state by Young et al. (1999). Also, Goedhart, Koller, and Wessels (2005) state that the terminal value should be calculated at the end of the explicit period. In order to get an accurate valuation the explicit period should be large enough and therefore between five and seven years ought to be an appropriate time frame to use.

2.6.2.1. Computation methods

There are three approaches to estimate the terminal value: the liquidation value, the multiple approach and the stable growth model.

2.6.2.1.1. The Liquidation value

The liquidation value can be estimated in two different ways. The first is based on the current value of the company's assets, taking into account the inflation rate, through formula 10.

Expected liquidation value = book value of the assets (1 + Inflation rate) average life of the assets (10)

The only disadvantage of this approach is that it is based on the accounting book value and therefore does not reflect the real earning power of the assets.

Regarding the second way of computing the liquidation value, it is related to estimating the earning power of the assets. Thus, one should be careful to use an accurate discount rate to discount the expected cash flows.

2.6.2.1.2. The multiple approach

According to the second approach - using multiples - the terminal value arises from the application of a multiple to the expected company's revenues in the liquidation year. Although this method is much simpler and easier to use, it requires caution. At the end, if this is the method that is chosen, it must be taken into account that the estimation comes from using comparable firms and thus the terminal value will result in a mix of both discounted cash flows and relative valuations.

2.6.2.1.3. The growth stable model

Finally, the growth stable model relies on the basic concept that the company will be liquidated at the end of its life. There are a few ways to compute the terminal value through this approach, depending on the assumptions that are made. If, for instance, the assumption is that the cash flows will grow at a constant rate until the end of the firm's life, then formula 11 ought to be used:

$$Terminal\ value = \frac{Cash\ flow\ t+1}{(r-stable\ growth)} \quad (11)$$

Depending also if the valuation is being made about equity or the firm itself, different formulas need to be used:

$$Terminal\ value\ of\ equity_n = \frac{Cash\ flow\ to\ equity\ \ n+1}{(Cost\ of\ equity\ n+1 - gn)} \quad (12)$$

$$Terminal\ value_n = \frac{Free\ cash\ fltow\ to\ firm\ n+1}{(Cost\ of\ capital\ n+1 - gn)} \quad (13)$$

2.6.3. Risk Free Rate and the Risk Premium

In all valuation models, a required rate of return by investors is present as a necessary input to make an investment in a project or in a company. This, on the other hand, is dependent on the risk premium, which consists of the difference between the risk free rate and the market rate of return.

The first step to take is to define what a risk free asset is. In order for an asset to be considered as risk free, its expected returns must be certain, which means that the expected returns must be equal to the actual returns. Secondly, risk of default cannot be present, meaning that it cannot be a security issued by private firms because even the most certain, safest and largest companies have at least some risk of default. In order to accomplish this parameter, only securities issued by the government can be

accepted, not because they are the safest companies but because they control the printing of currency. Finally, reinvestment risk cannot be present as well. For instance, in a three-year investment, a three-month Treasury bill rate, even with no default risk is not a risk free rate since there is no certainty of what will be the rate in the next three months. Even if we take into consideration a three-year Treasury bond, it is still not a risk free investment because it is not possible to predict today at what rate the coupons will be reinvested in the future. Therefore, only a three-year zero coupon can be considered since it is the only one that ensures totally certainty about the expected returns.

The basic idea behind the equity risk premium is that the riskier the investment the higher the expected return. In line with that, a safer investment should return a smaller gain. Therefore, and according to Damodaran (2002), the expected return of an investment should be the sum of the risk free rate plus an extra return to compensate for the risky investment.

It is still important to mention that the equity premium, according to Damodaran (2012), has distinct ways of being measured, which may lead to different results: while the first relies on historical data, the second - the ex-ante equity premium - is a forward-looking measure. Damodaran (2012) also mentions the Survey Approach, in which investors or managers are questioned so as to find out their own expectations with respect to future equity returns. Nevertheless, among the authors there does not seem to be an agreement on how to measure the risk and the appropriate interest rate to compensate for it. Risk should be broken into two different parts: the term-specific factor that is related to the risk of the investment itself and the market risk factor that takes into consideration the risk that affects all investments. The term-specific risk is diversifiable and the more investments a portfolio has, the less the term-specific risk and a certain point can even be achieved where it is totally removed. However, the market risk is not diversifiable and this will always be the same independently of the investments made. This is the risk that should be rewarded.

Total risk can be minimized as long as the diversifiable risk can be equally minimized as well. Nevertheless, the non-diversifiable risk will be always be the same regardless of the number of stocks. There are four models that measure the risk and return of an investment: Capital Asset Pricing Model (CAPM), Arbitrage Pricing Model (APM), Multifactor Model and Proxy Model. They all come to an agreement when discussing the split-up of these two types of risk but not in how to measure the non-diversifiable (market) risk. In models that can measure the market risk with beta, the expected return arises from the following formula:

$$Expected\ return = \ Risk\ free\ rate + \sum \beta (Risk\ premium) \quad (14)$$

In the first model – the CAPM – and since there is no private information neither transaction costs, beta is measured against the market portfolio. There are three different approaches to estimate discount rates through the CAPM: by using firm-level, industry-level, and market-level as measures of risk.

Regarding the APM, and assuming there is no arbitrage, investments which have the same exposure to market risk must have the same trading price. Concerning this, betas must be measured in terms of the unspecified multiples of the market risk components.

Concerning the Multifactor model, the assumption is the same as the APM model and therefore betas have to be measured against multiple specified macroeconomic factors.

Finally, with respect to the Proxy model, there is the assumption of longer periods and higher returns on investments that must compensate for higher market risk.

2.6.4. Cost of Capital

In order to finance their projects, companies need to raise money from investors, which can be either equity or debt holders. Still, they require a rate of return, the cost of capital. Luerhman (1997) says that both costs of debt and equity should be seen as opportunity costs since they reflect their own time value and risk premium.

The cost of equity is the return rate that equity investors require to invest in a given project of the company. This cost is composed by the risk free rate and a risk premium, which considers also the market risk, and takes into consideration the beta of the company, as it was stated before. Therefore, Damodaran (2002) and Koller et al (2005) agree when it comes to the definition of the cost of equity represented in equation 15.

$$Ke = Rf + \beta\ (E(Rm) - Rf) \quad (15)$$

There are three ways to estimate the betas of a company: the first is to use historical market betas while the second possible approach is to use fundamental betas, and finally, accounting betas.

Concerning the cost of debt, this refers to a cost that measures the capacity of a firm to repay its debt. It includes the risk free rate plus the default risk of the firm (and linked to default spread). The higher the default risk of the firm, the higher cost of debt. The cost of debt also includes the tax advantage that arises from debt, taking into consideration that the interest is tax deductible and there are some benefits on it, as it was previously mentioned. The after tax cost of debt comes through formula 16 represented below.

$$\text{After-tax cost of debt} = \text{Pretax cost of debt } (1 - \text{tax rate}) \quad (16)$$

Damodaran (2002) states that the default risk and spread are based on two different parameters. First, the recent borrowing history of the company, where from other loans that companies have with banks and other financial institutions, it is possible to check what the precious default spreads charged were. Secondly, to estimate a synthetic rating which means to assign a rating to the company based on its financial ratios, taking also into account the rating classes already assigned by others.

Occasionally, companies have difficulty when it comes choosing the correct tax rate. In this case, the one that should be used is the marginal tax rate since it is the one at which the last dollar of income is taxed, as states Goedhart, Koller, and Wessels (2005).

2.6.5. Weighted Average Cost of Capital

The Weighted Average Cost of Capital plays a crucial part when evaluating a firm's free cash flow to the firm, after getting estimates of the firm's future free cash flows.
Given that it simultaneously reflects the risk of the cash flows, the time value of money (the risk-free rate) and the risk premium that investors demand as a compensation for the risk they undertake, it is widely accepted in the literature as an adequate and accurate proxy for risk.

The main concept behind WACC is that it weights proportionally each category of capital against its capital structure, being thus a weighted average of all the sources of the firm's financing like common stock, preferred stock, bonds, and any other long term debt instrument that the company may use. In addition, the after-tax WACC is also a broad measure for risk since it already captures the benefits for firms that hold debt, through its tax shields.[1] One must not forget, however, that some factors like issuing costs, subsidies hedges, exotic debt or dynamic capital are specific financing programs for which the WACC needs to be adjusted, states Luerhman (1997).

There are still two important assumptions that ought to be made by managers before considering using WACC as a way of valuating projects, since every variable that goes into the formula is referent to the whole company:

1. By accepting the project, the firm is taking a compromise on how the project should not lead to a change in the firm's debt ratio, meaning that the firm needs to commit to keeping the debt ratio constant over time (which would mean a need of adjusting the borrowing accordingly with the value rising over time);
2. The project needs to be as risky as the average of the firm's other assets and if the project has a different risk then the WACC is no longer a suitable measure to be used. If firms use

[1] In situations where other financing side-effects need to be incorporated into the calculation of the firm's cost of capital, other methods such as the Adjusted Present Value (APV) can be used.

> WACC to discount every type of projects, disregarding how risky they are with comparison to the company itself, the firm will accept too many high-risk projects and reject too many low-risk projects. In fact, "it is the project risk that counts: the true cost of capital depends on the use to which the capital is put."[2]

One last important thing to mention is the case of conglomerate companies that operate into different business segments or different industries, with different characteristics and different risk. Even though this is not the case of Inditex, it is worth pointing out that the ideal would be not to use a single WACC for the entire company but let each division discount its own projects with its own WACC.

Taking all these factors into account, the WACC is given through equation 17, where D/V is the target debt level of the company, measured in market values and E/V is the target for equity level, also in market values. Thus, Kd is the cost of debt, Ke the cost of equity, and Tm the company's marginal tax rate.

$$WACC = \frac{D}{V} Kd\ (1 - Tm) + \frac{E}{V} Ke \qquad (17)$$

Therefore, the cost of equity is computed through the CAPM using the risk free rate, market risk premium, and the company beta, as the calculation inputs. The after tax cost of debt takes into consideration the risk free rate, default spread, and the marginal tax rate. Finally, the capital structure is just the proportion of the debt and equity in the company. Fernandez (2013) argues that while the cost of debt should be seen as a cost, the cost of equity – required rate of return – can be seen either as a cost or a return.

The WACC has, however, some limitations. The first one is presented by Luerhman (1997) and he defends that analysts often misapply it when ignoring some financial side effects like the cost of financial distress that comes along with the corporate leverage. Luerhman (1997) and Fernandez (2004) share the same opinion concerning the debate on how analysts use book values for the weights when they should be using market values instead.

2.7. Conclusion

After carefully weighting all the advantages and disadvantages of each method, I believe the DCF model should accurately evaluate a company's fair value. The DCF methodology is very flexible and is focused on the cash generation, meaning that it is based on the assets' fundamentals and not on market feelings or observations and shows the underlying characteristics of the company, which makes it easier for a buyer to understand the firm's business. Although the multiples valuation opens the scope of the

[2] Source: Brealey, Myers and Allen (2011)

valuation so as to take into consideration the industry or a representation of it through the peer group, I believe it is needed a good method to be used but as a supplement method to the DCF, and not as the main valuation tool.

3. History

The largest Spanish retailer and certainly one of the most important companies in the retailing and apparel industry is Industria del Diseño Textil, SA, mostly known as Inditex. Currently, its CEO is Pablo Isla, which was appointed by Amancio Ortega, Inditex's founder and previous CEO, and he is currently the major shareholder. Amancio underlined Pablo's youth and experience as a value added for the Group.

Amancio Ortega began his career very early at the age of 13 in the clothing industry He started off as a messenger boy for a shirt maker named Gala, and eventually became a store manager years later. In 1972 he founded his first clothing manufacturing company, Confecciones Goa, in Coruña, selling not only for Spain but also for a few more countries in Europe. With already some experience, Amancio opened his first store in Coruña called Zara, in 1975. It was particularly popular because on the one hand he built a very successful and unique business model based on the combination of fashion and high quality products at low prices and on the other hand the stores were placed in strategic downtown locations. Given the great success verified, a validation of this business model, a considerable number of stores along some major Spanish cities opened in the next few years.

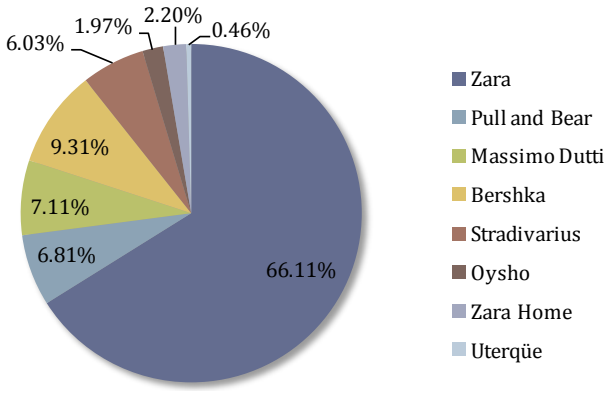
In 1985 he created Inditex as the holding company. Later, in December 1988, Inditex launched Zara's first overseas store in Oporto, Portugal, followed by openings in New York in 1989, and in Paris in 1990. During the 1990s, Inditex suffered a vast expansion, launching stores in 29 countries in three different continents: Europe, America and Asia. The Group acquired and created new companies such as Pull and Bear, Massimo Dutti, Bershka and Stardivarius, in order to reach different segments and formats for different types of customers. During the 2000's, Inditex launched three new brands, Oysho (2001), Zara Home (2003), and Uterqüe (2008). These three new brands delivered quite different products from the others given that Oysho sells lingerie, Zara Home with a totally different concept focuses on decorating and furniture and, finally, Uterqüe sells quotidian products, such as jewelry, hand bags and sun glasses.

In 2001, Inditex went public through an IPO. Amancio Ortega sold 26% of his shares, which made the company to be valued at almost €9 billion. Therefore, Amancio and his family retained 70%, with the remaining 4% belonging to management and employees. Two months later, in July 2001, the share price was 25% higher than the initial price, with Inditex's value surpassing the € 11 billion mark.

4. Inditex today

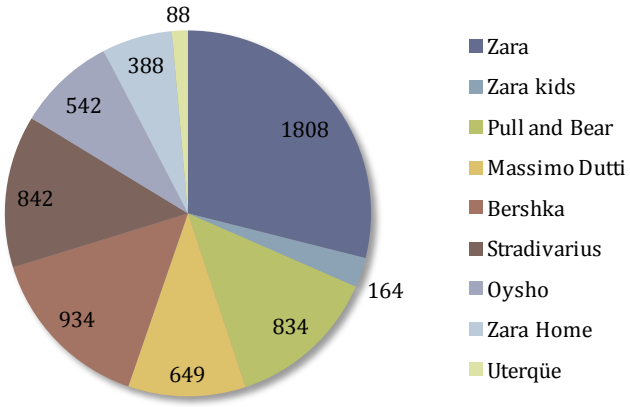
Currently, Inditex is present in 86 different countries with 6249 stores. Inditex owns 8 different brands: Zara, Pull and Bear, Massimo Dutti, Bershka, Stardivarius, Oysho, Zara Home, and Uterqüe. According to the financial data in the last annual report (2012), Zara is by far its main brand with 29% of its stores (1808 of 6249)[3], and representing 66.11% of total sales (10.541 € million out of 15.946 € million)[4]. These different brands allow the Group to diversify its target customers and therefore reach different market segments.

Figure 1 – Percentage of store contribution for Total Sales



Source: Inditex's annual reports

Figure 2 – Number of worldwide stores at October 2013



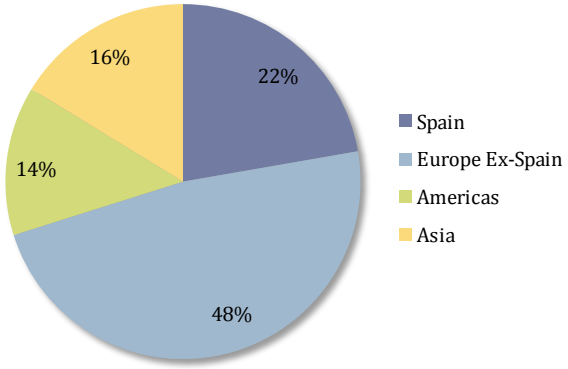
Source: Inditex's annual reports

According to Inditex's annual 2012 report, the Group sales are divided into four main areas: Spain, Europe Ex-Spain, Americas, and Asia (Rest of the World). As one can see in Figure 3, Europe Ex-Spain represents its major selling area with 47.9%, followed by Spain with 22.2%, Asia with 16.3%, and finally, Americas with 13.6%. As part of its internationalization strategy, Inditex has made an

[3] Last update in 31/10/2013
[4] Annual report of 2012

investment in Asia and it expects to grow even more in this part of the world, so as to benefit from the large number of customers.

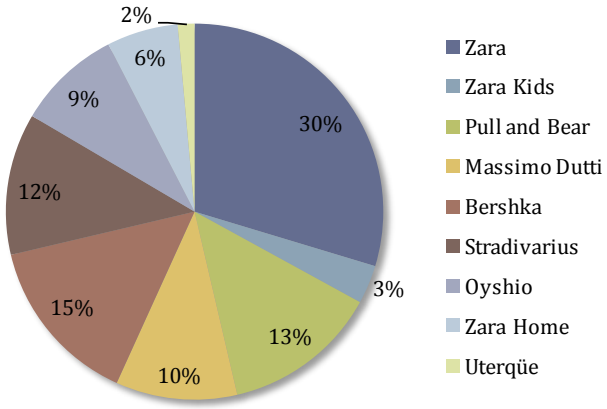
Figure 3 – Percentage of Sales by World Region



Source: Inditex's annual reports

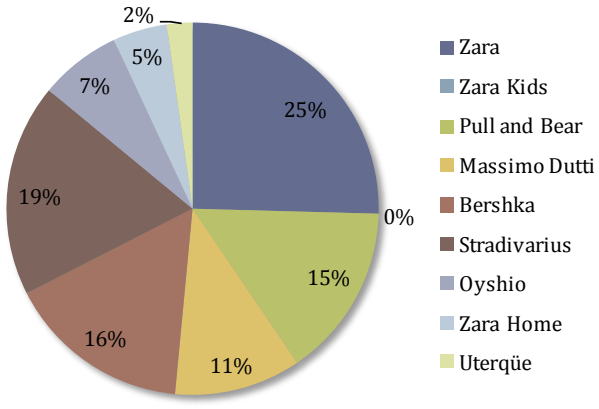
Concerning ownership's stores and taking into account the data available in their last annual report, Inditex owns 87.3% of the stores, with the remaining 12.7% being franchised stores.

Figure 4 – Number of Stores owned by Inditex



Source: Inditex's annual reports

Figure 5 – Number of Franchised Stores



Source: Inditex's annual reports

5. Business model

Inditex states that its success is due to its flexible business model: Stores, Design, Manufacturing and Distributing. This model allows the company to adapt to every situation. Besides the fact that its main competitors have chosen the outsourcing model, Inditex opted for the vertically integrated model. This means that the Group fully controls the entire supply chain, starting with Design, going through both Manufacturing and Distribution, and finishing in the Stores.

The first step of the supply chain is the Design. This is a crucial step since, as previously mentioned, the Group has different brands with different types of customers of different ages and has thus to adapt. There is thus a vast team of more than 1000 professionals responsible for the different products. Taking into account all the information collected in the stores and online data, this team creates more than 30000 products as fast as possible, being the key to have high fashion products, combining the latest trends with low costs.

Concerning Manufacturing, nearly half of its production is made by local suppliers among Europe which facilitates the entire process. Inditex has its own Code of Conduct for Manufacturers, which allows to building close and ethical relationships of trust and stability. The other half of the production occurs in owned factories. The majority of these factories are in Spain which again makes the process easier. In both cases, the relationships are tight and therefore make the vertical integration possible. Only this way can the throughput time be reduced to 2 weeks, against an average of 6 weeks in the whole industry.

Distribution is the process that ensures that the products are delivered in the stores within the deadline. Before going to the stores, products pass through a distribution center in Spain (mainly located in Madrid, Barcelona, Coruña). The distribution process is conducted twice a week and always contains new products. This way, Inditex can guarantee that the products are delivered to Europe in within 24 to 36 hours, and to the rest of the world within no more than 48 hours.

Finally, the last step of this successful business model is the Stores. Inditex does not spend any money in advertising. Instead, they would rather invest in stores locations, with a large number of people in circulation and with a tremendous architectural design as well as huge well-designed shop windows. Another concern is the top-class customer care notion that every Inditex's employee has. The online stores are still growing and are also becoming gradually more important.

6. Financial Analysis

In order to perform a precise and exact valuation of Inditex, it is necessary to carefully analyze historical information as a way of further understanding the values and the way of the company operates. For that, I will take into consideration the last seven years, which I believe to be a period large enough to allow one to make an accurate forecast and to understand how the company operates.

Figure 6 – Inditex's Income Statement

(in thousands of euros)	FY2012	FY2011	FY2010	FY2009	FY2008	FY2007	FY2006
Net Sales	15.946.143	13.792.612	12.526.595	11.083.514	10.406.960	9.434.670	8.196.265
Cost of Merchandise	-6.416.825	-5.612.216	-5.104.573	-4.755.505	-4.492.720	-4.085.959	-3.589.276
Gross Profit	**9.529.318**	**8.180.396**	**7.422.022**	**6.328.009**	**5.914.240**	**5.348.711**	**4.606.989**
Gross Margin	**59,76%**	**59,31%**	**59,25%**	**57,09%**	**56,83%**	**56,69%**	**56,21%**
Operating expenses	-5.604.783	-4.919.328	-4.452.211	-3.952.702	-3.707.887	-3.226.369	-2.800.243
Other expenses and income, net	-11.578	-3.396	-3.604	-1.118	-19.497	26.501	-17.060
Gross operating profit (EBITDA)	**3.912.957**	**3.257.672**	**2.966.207**	**2.374.189**	**2.186.856**	**2.148.843**	**1.789.686**
EBITDA Margin	**24,5%**	**23,6%**	**23,7%**	**21,4%**	**21,0%**	**22,8%**	**21,8%**
Amortization and depreciation	-796.117	-735.666	-675.738	-645.801	-578.320	-496.663	-433.427
Net operating profit (EBIT)	**3.116.840**	**2.522.006**	**2.290.469**	**1.728.388**	**1.608.536**	**1.652.180**	**1.356.259**
EBIT Margin	**19,55%**	**18,29%**	**18,28%**	**15,59%**	**15,46%**	**17,51%**	**16,55%**
Financial results	14.129	37.006	31.116	3.782	-21.599	964	-14.035
Equity accounting losses	0	0	0	0	0	-7508	-2786
Profit before taxes (EBT)	**3.130.969**	**2.559.012**	**2.321.585**	**1.732.170**	**1.586.937**	**1.645.636**	**1.339.438**
Income tax	-763.956	-613.480	-580.305	-410.033	-325.322	-387.872	-329.502
Net profit	**2.367.013**	**1.945.532**	**1.741.280**	**1.322.137**	**1.261.615**	**1.257.764**	**1.009.936**

Source: Inditex's annual reports

In the income statement, represented in Figure 6 above, and starting by the Gross Margin and the EBITDA Margin, it is possible to verify that the company has been consistently profitable over the past few years. For instance, the Gross Margin has been stable varying from 56% to 59%. According to the EBITDA Margin it is possible to see that it has also been stable during the last years, from 21% to 24%, which is considerably better than the industry, as accounted by Damodaran[5] (14% - Apparel).

Even in troubled years such as 2008 and 2009, Inditex was able to keep its margins and to keep its sales growing at a normal pace. It was possible to support the sales growth with the investment made in international expansion from previous years.

Another measure of profitability is the Return On Equity (ROE[6]), which is the ability of the company to return the money to the shareholders and it is shown in Figure 7.

[5] http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/margin.html
[6] ROE = Net Income / Equity

Figure 7 – Inditex's historical Return on Equity

	2012	2011	2010	2009	2008	2007	2006	2005
ROE	27,91%	26,09%	27,11%	24,62%	26,57%	29,83%	29,10%	27,76%

Source: Inditex's annual reports and own analysis

It is possible to verify that the ROE has been consistent between 27% and 29%. The values presented prove to be higher than the average of the industry as computed by Damodaran[7] (17% - Apparel). Apart from the fact that Inditex has been very profitable for the past years, ROE takes into consideration the capital structure, with the company presenting almost no debt in the past few years.

Figure 8 – Inditex's historical Capital Structure

Capital Structure	2012	2011	2010	2009	2008	2007	2006	2005
Debt ratio	0,05%	0,02%	0,06%	0,09%	0,28%	0,99%	1,34%	2,54%
Equity ratio	99,95%	99,98%	99,94%	99,91%	99,72%	99,01%	98,66%	97,46%

Source: Inditex's annual reports and own analysis

The debt ratio has been almost zero only due to the fact that the company has been generating great cash flows and still has enough to reinvest money back into the company. In the case of reinvestment, this concerns the opening of new stores, with the company clearly relying on this expansion strategy as a way of being financially healthy.

7. Industry Analysis

The retail industry is still growing worldwide despite the difficult times and crisis that is being experienced. What is expected for the next years in this industry is that retail companies with headquarters in Europe will increase their dependence on foreign markets. While Europe is still experiencing a crisis, and it will take time to fully recover from it, countries in emerging markets like Asia and Africa are growing at a very fast pace.

This industry is changing as fast as technology. The combination of both physical and virtual world is changing the way customers think. The basis of this rapid change is mobile devices, digital media and tablets which are already equipped with shopping applications. The main goal nowadays for the traditional retailers is to integrate these two worlds. The retail industry has become a technological industry for two main reasons: Firstly, it is easier to control and monitor the entire process, from the production, to the customers, for instance. Secondly, online stores must also be taken into consideration, given that they play a vital role in today's markets. Online sales are not replacements for the traditional ones but, instead, complementary. Actually, the two main points of online sales are that online sales reach new customers and existing customers buy more through online platforms.

[7] http://pages.stern.nyu.edu/~adamodar/

Two great cost savings for online stores can be highlighted: the cost associated with the store renting and staff costs.

In terms of population of digital buyers, countries like China, the US, Japan, the UK, Germany, France, and Russia are those with the highest number of potential customers. The population in these countries has high potential density, which represents thus a huge potential opportunity for online sales.

8. Macroeconomic Analysis

Currently, the main factor that influences the retail and apparel industry is the cotton price. I believe the cotton price will be the major discussion in the margins of years to come, since tissue and materials represent around 60% of the Costs of Goods Sold. From March 2011 until September 2012, and since then, the cotton prices have, however, stabilized.

Regarding cotton production, it is expected to be 146 million bales in 2020 (30 million bales more than in 2011)[8]. Equally important is the production and consumption of cotton in Europe, given that the higher percentage of Inditex's market share is in this part of the world. However, it is expected to decrease until 2020, which will result in major companies like Inditex to invest in markets much more attractive such as China who is projected to use about 41% of the world cotton mill in 2020. The retail industry in China will still be growing but at a slower pace for the next 10 years, due to the increase in labor costs. As a result of this, some of the mill capacity will be moved to other Asian countries such as Vietnam, Bangladesh, and India[9]. In addition to that, real GDP is expected to grow by 2% to 3% in developed countries and by around 5% to 6% in developing countries until 2020[10].

Finally, and according to the feeling in Southern European countries, which are in financial distress, sales in these areas will not grow or at least not at the same pace as other markets like the rest of Europe or Asia. This is mainly verified for companies like Inditex, which has its headquarters in Spain, and a major part of its sales are in countries like Spain, Portugal, Greece, and Italy.

9. Valuation

In this section I will use the Discounted Cash Flow (DCF) method as the main valuation tool to compute Inditex's share price and it will be done on a consolidated basis. In order to compute the firm's Free Cash Flows to the Firm (FCFF), I used historical data, mostly since 2003, and with a five year explicit period.

[8] According to "Global Cotton Baseline 2010/11 – 2020/21" from Cotton Economics Research Institute, March 2011
[9] According to "Global Cotton Baseline 2010/11 – 2020/21" from Cotton Economics Research Institute, March 2011
[10] According to "Global Cotton Baseline 2010/11 – 2020/21" from Cotton Economics Research Institute, March 2011

In order to make the forecast for the next few years I used historical data based on the financial statements of Inditex's both annual and quarterly reports. Each item has its own assumptions and method to forecast. However, the particular case of the 2013 forecast is based on the already existent values of the third trimester. The values presented on the trimestral reports are reported on an accumulated basis which means that the forecast of 2013 should be very close to its real value.

If possible, this report should have been based on the Adjusted Present Value (APV) model, which is based on the sum of the different parts of valuation. Unfortunately, this thesis is based on public information and Inditex did not disclosure any information regarding segments or countries.

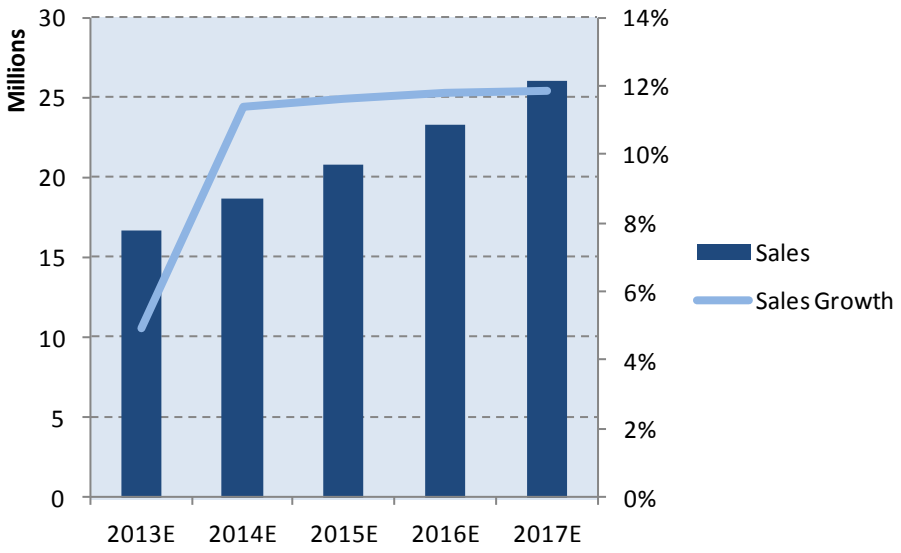
9.1. FCFF Inputs

The first input of this analysis is the Net Operating Income – EBIT. In order to reach this value, revenues, cost of goods sold, operating expenses, amortizations and depreciations have to be computed first.

9.1.1. Sales

As a way of getting an accurate forecast for Sales, its historical evolution should be taken into consideration, as well as three other factors: Like-for-like (LFL) growth, currency, and stores expansion growth.

Figure 9 – Inditex's sales growth



Source: Inditex's annual reports, IMF data, and own analysis

9.1.1.1. Like-for-like (LFL) growth

The LFL is a very common measure used in the retail industry and it regards the increase of sales of the existing stores in a given year, taking into consideration the new openings in the previous year. The LFL is based on the increase of prices and in order to forecast it I used the GDP growth. Inditex's sales are distributed in four main locations: Spain, Europe Ex-Spain[11], Americas, and Asia[12]. By being able to take the GDP growth from IMF – World Economic Outlook 2013 - for the different regions, this enabled me to compute a weighted GDP by the main regions.

9.1.1.2. Currency

Currently, Inditex is present in 86 countries and around 30% of its sales are from outside Europe. I believe that the currency impact should be considered when computing the sales forecasting. However, taking into consideration the large number of different currencies that Inditex deals with, it would not be possible to compute this impact in Inditex's global sales. For the sake of simplicity, I will assume this impact to be zero in the future.

9.1.1.3. Stores expansion growth

Regarding Inditex's store expansion growth, both new openings and the squared meters per store should be taken into consideration. The company expects to grow between 8% and 10% per year for the next few years. I believe 9% per year would be a reasonable assumption, since its expansion has also been around 9% since 2008, as verified in Table 10.

Figure 10 – Inditex's stores, selling area, and square meters per store

(in thousands of euros)	2017E	2016E	2015E	2014E	2013E	FY2012	FY2011	FY2010
Nr of Stores	9.246	8.482	7.782	7.139	6.550	6.009	5.527	5.044
Growth	9%	9%	9%	9%	9%	8,7%	9,6%	9,5%
Total Selling Area	4.864.280	4.462.642	4.094.167	3.756.116	3.445.978	3.161.448	2.838.980	2.587.648
Growth	9%	9%	9%	9%	9%	11%	10%	10%
Square meters per store	526,12	526,12	526,12	526,12	526,12	526,12	513,66	513,02

Source: Inditex's annual reports and own analysis

[11] IMF: World Economic Outlook October 2013. European Union composed of 28 countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Romania, and United Kingdom.
[12] IMF: World Economic Outlook October 2013. Developing Asia composed of 29 countries: Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Fiji, India, Indonesia, Kiribati, Lao P.D.R., Malaysia, Maldives, Marshall Islands, Micronesia, Mongolia, Myanmar, Nepal, Palau, Papua New Guinea, Philippines, Samoa, Solomon Islands, Sri Lanka, Thailand, Timor-Leste, Tonga, Tuvalu, Vanuatu, and Vietnam.

Since the square meters per store have not been changing during the last years, I will assume that they will thus remain the same for the next few years considered in this valuation, stabilizing at a value of 526m^2.

The stores expansion growth is a vital item in the sales forecast since it is related to the increase in the number of stores, a crucial part of Inditex's global strategy. Since I assumed that square meters per store would remain constant over the next few years, I will assume that the number of stores will increase at rate of 9% per year for the next 5 years. I believe 9% would also be a reasonable assumption for the number of stores, taking into consideration that it has in present years been around 10% per year.

9.1.2. Costs

The costs as a whole can be split into four main categories: Costs of merchandise (or cost of goods sold – COGS), operating expenses, other expenses & income, and amortizations & depreciations. The following section will analyze their separate computations and later contribution to the valuation of the firm.

9.1.2.1. Cost of goods sold

I believe the main factor that can distinguish a company from its peers is the costs of merchandise, which is directly related to the manufacture of the main products of the firm's core business. In the case of Inditex, and given the industry in which it operates, the importance and drivers of COGS must be highlighted. It must also be taken into consideration the fact that its main drivers are the price of goods and the volume of sales, which will thus also have an indirect impact on the firm value. As mentioned before, and on the other hand, the price of goods partially come from the cotton price, which have been quite unstable for the last years. This causes it, consequently, to be considerably difficult to forecast, as can be observed in Figure 11 below. The fact that it is not an easy input to forecast added to the fact that it is a crucial determinant for the firm's costs reflect its importance in the firms operations and, as a result, in its overall value.

Figure 11 – Evolution of Cotton Prices

Source: Inditex's annual reports

Another crucial factor that influences Inditex's COGS are volume sales, meaning that the larger the volume of sales, the lower the costs. Nonetheless, and taking into consideration the historical data collected on the company it should be noticed that COGS as a margin of sales have been decreasing at a rate of 2.35%, as reflected in Figure 12.

I believe that even though COGS decrease at that mentioned rate, once the margin of sales reaches the barrier of 38%, Inditex will not be able to go below that value. This is due to the fact that after this percentage the margin does not depend anymore on the volume of sales and it is almost impossible to achieve margins below 38% in this sector. Therefore, it is my belief that 38% will be the margin of sales for the remaining years and is, as a result, the value I have used for the remaining of the valuation.

Figure 12 – Inditex's Sales, COGS, and Gross Profit

(in thousands of euros)	2017E	2016E	2015E	2014E	2013E	FY2012	FY2011	FY2010
Net Sales	26.017.083	23.257.369	20.804.644	18.638.138	16.736.292	15.946.143	13.792.612	12.526.595
Growth	11,87%	11,79%	11,62%	11,36%	4,96%	15,61%	10,11%	13,02%
Cost of Marchandise	-9.886.491	-8.915.411	-8.072.574	-7.320.238	-6.838.608	-6.416.825	-5.612.216	-5.104.573
Margin	-38,00%	-38,33%	-38,80%	-39,28%	-40,86%	-40,24%	-40,69%	-40,75%
Gross Profit	16.130.591	14.341.957	12.732.070	11.317.900	9.897.684	9.529.318	8.180.396	7.422.022
Gross Profit margin	62,00%	61,67%	61,20%	60,72%	59,14%	59,76%	59,31%	59,25%

Source: Inditex's annual reports, IMF data, and own analysis

9.1.2.2. Operating expenses

Operating expenses are directly related to sales volume and include personnel expenses, operating leases and other operating expenses. Operating leases, on the other hand, are related to leasing activities from third parties and mostly refer to rentals with fixed monthly payments that are afterwards adjusted for inflation. Finally, other operating expenses include expenses related to store operations and logistics, which would be items such as electricity, commissions on card payments and decoration, for instance.

Since operating expenses are directly related to sales and the margin of sales, this margin has been quite constant and around 35%, I believe maintaining a 35% margin of sales for the remaining years is a reasonable assumption.

Figure 13 – Inditex's Sales and Operating Expenses

(in thousands of euros)	2017E	2016E	2015E	2014E	2013E
Net Sales	26.017.083	23.257.369	20.804.644	18.638.138	16.736.292
Growth	11,87%	11,79%	11,62%	11,36%	4,96%
Operating Expenses	-9.105.979	-8.140.079	-7.281.625	-6.523.348	-5.981.633
Margin	-35,00%	-35,00%	-35,00%	-35,00%	-35,74%

Source: Inditex's annual reports, IMF data, and own analysis

Figure 14 – Inditex's Sales and Operating Expenses

(in thousands of euros)	FY2012	FY2011	FY2010	FY2009	FY2008	FY2007	FY2006	FY2005
Net Sales	15.946.143	13.792.612	12.526.595	11.083.514	10.406.960	9.434.670	8.196.265	6.740.826
Growth	15,61%	10,11%	13,02%	6,50%	10,31%	15,11%	21,59%	18,88%
Operating Expenses	-5.604.783	-4.919.328	-4.452.211	-3.952.702	-3.707.887	-3.226.369	-2.800.243	-2.296.759
Margin	-35,15%	-35,67%	-35,54%	-35,66%	-35,63%	-34,20%	-34,16%	-34,07%

Source: Inditex's annual reports, IMF data, and own analysis

9.1.2.3. Other operating and income

In this item would be included all the income (losses) related to operating expenses that are not included in operating expenses, such as commercial and logistics activities like changes in prices of debts due to cross put and call options related to its subsidiaries and associates. I believe this item is linked to Sales. In this case, I decided to decrease the margin at the historical rate. Also, in 2017, I added a margin of 1% of revenues because this will be the value used to compute the terminal value, and since Inditex is not using R&D, I believe that in the long run they will need to catch up to the market and eventually adapt themselves, which will consequently come in as a cost to the company.

9.1.3. Amortizations and depreciations

I believe that in order to get an accurate forecast for the value of amortizations and depreciations one should calculate it as a margin of the Property, Plant, and Equipment (PPE). I used the historical annual rate of the A&D to decrease its margin related to the PPE. As one can verify in Figure 15, in the past this margin has not been changing in a considerable way, remaining constant around 19%. As a result, I believe that relying on the average of past years and using a proxy of 19% will be a logical assumption for the remaining years and to use later in the company's valuation.

Figure 15 – Inditex's PPE and A&D

(in thousands of euros)	2017E	2016E	2015E	2014E	2013E	FY2012	FY2011
Property, plant and equipment	7.446.492	6.776.582	6.166.939	5.612.141	5.107.255	4.662.407	4.063.066
Amortization and depreciation	-1.414.834	-1.287.551	-1.171.718	-1.066.307	-843.105	-796.117	-735.666
Margin	-19%	-19%	-19%	-19%	-16,51%	-17,08%	-18,11%

Source: Inditex's annual reports and own analysis

9.1.4. Changes in working capital

The changes in working capital are another main input that will take part on the Discounted Cash Flow methodology. These changes are obtained from the non-financial current assets and liabilities. This means that the inputs to the computation of the Working Capital are based on Trade & Other Receivables (Payables), Inventories, Income Tax Receivable (Payable) and Other Current Assets.

In order to arrive at the forecasting for the changes in working capital for the next few years, the average days in receivables, payables and inventory held needed to be computed. Therefore, there was the need to perform calculations for Days Sales Outstanding (DSO), Days Inventory Held (DIH) and Days Payables Outstanding (DPO). While the DSO was computed as a margin of the sales, both DIH and DPO were calculated as margin of COGS. The DSO measures the number of days that the company takes to get back its revenues after the sale is made. On the other hand, the DPO is the number of days that the company takes to pay back to the creditors after the purchase is made. Once again, and relying on historical values, for the three inputs I assumed the average days of the last years and kept them constant for the next few years.

Figure 16 – Inditex's days outstanding and held

(in thousands of euros)	2017E	2016E	2015E	2014E	2013E	FY2012	FY2011
Net Sales	26.017.083	23.257.369	20.804.644	18.638.138	16.736.292	15.946.143	13.792.612
COGS	-9.886.491	-8.915.411	-8.072.574	-7.320.238	-6.838.608	-6.416.825	-5.612.216
Trade and Other Receivables	1.191.888	1.065.460	953.097	853.845	869.241	847.608	531.048
Days Sales Outstanding (DSO)	17	17	17	17	17	19	14
Inventories	2.302.607	2.076.439	1.880.138	1.704.916	1.698.301	1.581.297	1.277.009
Days Inventory Held (DIH)	85	85	85	85	85	90	83
Income Tax Receivable	53.517	47.840	42.795	38.339	34.427	58.936	17.235
Days Sales Outstanding (DSO)	1	1	1	1	1	1	0
Other Current Assets	163.558	146.209	130.790	117.170	116.909	92.928	94.561
Days Sales Outstanding (DSO)	2	2	2	2	2	2	3
Trade and Other Payables	4.668.210	4.209.685	3.811.713	3.456.475	3.207.831	3.243.281	2.475.140
Days Payables Outstanding (DPO)	172	172	172	172	172	184	161
Income Tax Payable	325.459	293.492	265.746	240.979	225.124	165.428	204.068
Days Payables Outstanding (DPO)	12	12	12	12	12	9	13

Source: Inditex's annual reports and own analysis

Consequently, summing up all the forecasts for Trade & Other Receivables, Inventories, Income Tax, Other Current Assets, Trade & Other Payables and Income Tax Payable I was able to get an accurate forecast for the Working Capital. The Changes in Working Capital are just the difference between one year and the previous one. One can see that the changes in working capital have been quite unstable and, therefore, difficult forecast.

Figure 17 – Inditex's Working Capital and its changes (forecast)

(in thousands of euros)	2017E	2016E	2015E	2014E	2013E
Working Capital	-1.282.099	-1.167.229	-1.070.640	-983.185	-714.078
Changes in Working Capital	-114.871	-96.589	-87.455	-269.107	113.862

Source: Inditex's annual reports and own analysis

Figure 18 – Inditex's Working Capital and its changes (historical)

(in thousands of euros)	FY2012	FY2011	FY2010	FY2009	FY2008
Working Capital	-827.940	-759.355	-903.165	-746.217	-359.061
Changes in Working Capital	-68.585	143.810	-156.948	-387.156	211.970

Source: Inditex's annual reports and own analysis

9.1.5. Capital Expenditures

The capital expenditures (CAPEX) are investments made by Inditex as a way of benefiting from future profits. Inditex's plan is to rely on CAPEX and, consequently, receive future cash flows which increases its own value and goes in line with its above mentioned expansion strategy and investment plan. The CAPEX is related to tangible assets investments which, in turn, are related to property, plant, and equipment (PPE). In order to arrive at the forecasts of the CAPEX for the following years, I took into consideration the proportion of the CAPEX in relation to new stores.

Given that Inditex expects between 8% and 10% of new openings per year for the following years, I believe that the average value of 9% is a reasonable assumption. Since the relationship between the growth of the CAPEX and the new number of stores has been 8.19% per year, I believe that maintaining this growth rate for the remaining years is, likewise, a reasonable assumption. Finally, by multiplying the new number of stores every year by this assumed average margin I was able to achieve the forecasts for the CAPEX, shown in Figure 19.

Figure 19 – Inditex's Number of Stores and CAPEX

(in thousands of euros)	2017E	2016E	2015E	2014E	2013E	FY2012	FY2011	FY2010
Number of Stores	9.246	8.482	7.782	7.139	6.550	6.009	5.527	5.044
Openings	763	700	643	589	541	482	483	437
CAPEX/Stores	-3.262	-3.015	-2.485	-1.470	-1.343	-1.460	-1.549	-1.864
CAPEX	-1.764.047	-1.453.222	-1.200.182	-642.396	-460.617	-836.317	-867.563	-818.400

Source: Inditex's annual reports and own analysis

9.1.6. Cost of Capital

Similarly to its industry peers, Inditex's debt level has been relatively low for the past years (0.05% in previous years). My assumption is that for the next few years the company will, as well, have zero debt. This will mean that, on the one hand, the firm will not increase its value by benefiting from Tax Shields but it will also not have to deal with negative issues that arise when companies hold debt, such as the need for fixed payments and bankruptcy costs. As a result of the low level of debt held by Inditex, this will cause its Weighted Average Cost of Capital (WACC) to be the same as its cost of equity. Going back to formula 17 this means, thus, that the inputs of *Kd* and *D* will have the value of zero, and its value simply arises by the value of the equity it holds.

However, and as a way of further completing and analyzing the firm thoroughly, I will still state the cost of debt by relying on values from the literature.

According to Damodaran, the cost of debt for Inditex is 6.24%, which includes the total default spread for cost of debt (company and country, and since the company is debt free, this cost would basically reflect the current crisis period in Europe, but mainly in the southern countries, such as Spain), which is 3.20%, plus 3.04% of the risk-free rate. Regarding the cost of equity, I used the Equity Risk Premium (ERP) from Damodaran of 8.30%, which consists in 5% regarding the mature market ERP plus 3.30% of the country risk premium.

For the beta calculations a simple average of the last two years[13] of historical weekly data was used, which is the methodology used by the Bloomberg platform. Damodaran, on the other hand, computes his betas as the weighted regression of the last two years, weighting more than 65%, and the remaining weight allocated for the regression of the last five years. I believe that two years of weekly data is a period large enough and by using weekly data this allows for a large enough number of observations but prevents the noise and volatility of daily data.

Finally, and in order to arrive at the value of the risk free rate I used the last value[14] of the German 10 Year Treasury Bond, which was of 1.66%.

9.1.7. Perpetual Growth Rate

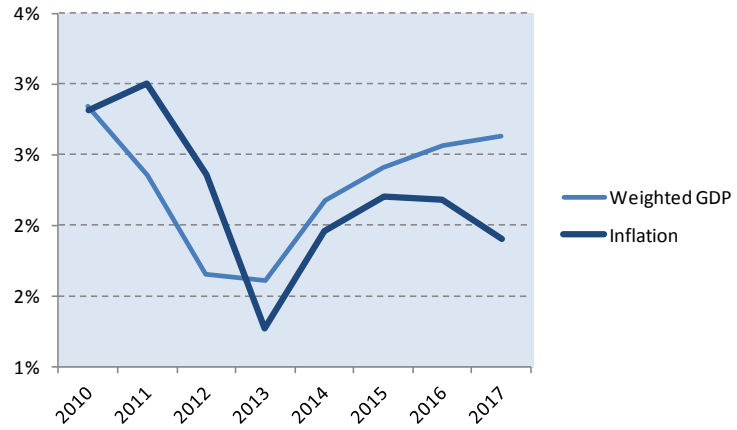
The perpetual growth rate was based on a weighted GDP calculation and weighted inflation for the most important and before mentioned four regions of Inditex's sales: Spain, Europe Ex-Spain, America,

[13] Updated until 21/02/2014
[14] Updated until 21/02/2014

and Asia. I believe this growth rate should be weighted since Inditex is a global company, with sales in various parts of the globe.

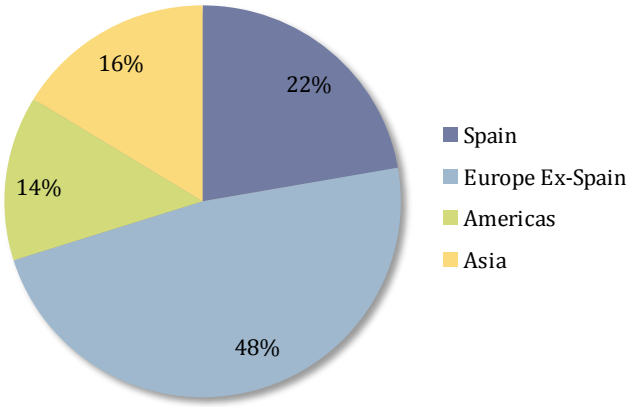
This growth rate was computed so as to calculate the terminal value at the end of the explicit period, since the company will not maintain its cash flows growing at the same rate forever. By weighting the values of the Sales, I was able to compute a weighted inflation of 1.9% and a weighted GDP of 2.63%, as reflected in Figures 20 to 22. This finally led to a growth rate of 4.58%, the value used in the Terminal Value computations.

Figure 20 – Weighted Inflation and GDP



Source: IMF data

Figure 21 – Weighted Inflation and GDP



Source: Inditex's annual reports

Figure 22 – Weighted Inflation and GDP

	2017E
GDP Growth	2,63%
Inflation	1,90%
Growth Rate	4,58%

Source: Inditex's annual reports and IMF data

9.1.8. Number of Shares

In order to achieve a precise and accurate fair value per share - one of the crucial goals of this valuation - the number of shares in each year had to be determined. This number has not been changing considerably for the past years therefore I believe it is safe to assume that in the future it will likewise not change. Consequently, I will assume the last year's number of shares as the fixed number of shares for the years to come.

9.1.9. Financial analysis

After having completed all the main estimations of the Free Cash Flow to the Firm inputs, the Income Statement is nearly estimated and only the Financial Results, Equity Accounting Losses, the Tax Rate and Minorities values are missing. Consequently, and as a way of getting an accurate forecasting, the Financial Results had to be decomposed into several items.

Starting with the total revenues of the Financial Results, and concerning the first item - Interest Income - I assumed it to be a margin of EBIT, decreasing at a rate of 14,39% (the CAGR since 2003), until it reached 0,45%, a value which I believe is not likely to go any lower.

In what concerns the Foreign Exchange Gains, I followed the same reasoning and I assumed it to be a margin of EBIT, increasing at a rate of 5,65% - the CAGR since 2003. Since there is no more information available concerning dividends, I will assume the value of the last available year (FY2011) to be constant over time.

On the other hand, and now regarding the total expenses of Financial Results, since the financial debt was 0,05% last year I will assume the financial debt to be zero in the future. Adding to that the fact that there is no intra-year debt, I will assume Interest Expenses and Other Finance Costs to be zero as well.

The Foreign Exchange Losses were computed as a margin of EBIT and seeing as the values of past years were very inconsistent, the CAGR of the last 3 years was used for the forecasts. Finally, concerning the

Changes in Fair Value of Financial Instruments, I will also assume zero for the forecasts of the following years given that it was zero in every year except for one.

Since both Equity Accounting Losses and Minorities have been zero over the last few years, I believe it is also reasonable to assume that both items will be zero for the forecasting years.

Concluding, and as the average of the Tax Rate for the last few years was around 24%, I will assume that, similarly, the tax rate for the next few years will be constant and equal to 24%.

9.1.9.1. Key performance indicators

Figure 23 – Inditex's performance indicators

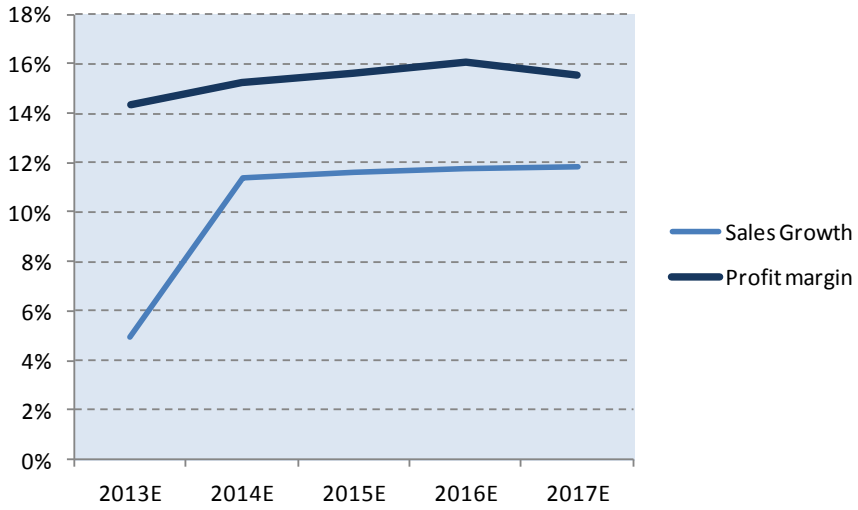
	2017E	2016E	2015E	2014E	2013E	FY2012	FY2011
Sales	26.017.083	23.257.369	20.804.644	18.638.138	16.736.292	15.946.143	13.792.612
Sales Growth	11,87%	11,79%	11,62%	11,36%	4,96%	15,61%	10,11%
EBITDA	6.755.236	6.192.377	5.440.631	4.784.401	3.914.397	3.912.957	3.257.672
EBITDA as margin	25,96%	26,63%	26,15%	25,67%	23,39%	24,54%	23,62%
EBIT	5.340.402	4.904.826	4.268.912	3.718.094	3.071.292	3.116.840	2.522.006
EBIT as margin	20,53%	21,09%	20,52%	19,95%	18,35%	19,55%	18,29%
Net Income	4.050.717	3.727.871	3.250.752	2.837.257	2.398.489	2.367.013	1.945.532
Profit as margin	15,57%	16,03%	15,63%	15,22%	14,33%	14,84%	14,11%

Source: Inditex's annual reports and own analysis

Figure 23 represents both historical and projections of Inditex's key performance indicators. It is possible to see that historical ratios have shown both profitability and consistency. Also, overall, the forecasted ratios are in line with historical ones. Starting with EBIT and EBITDA as margin, it is possible to see an improvement over the period in considerations, which reflects the growth potential of Inditex.

The company has been performing above average and has been keeping particularly interesting ratios.

Figure 24 – Inditex's sales growth and profit margin



Source: Inditex's annual reports and own analysis

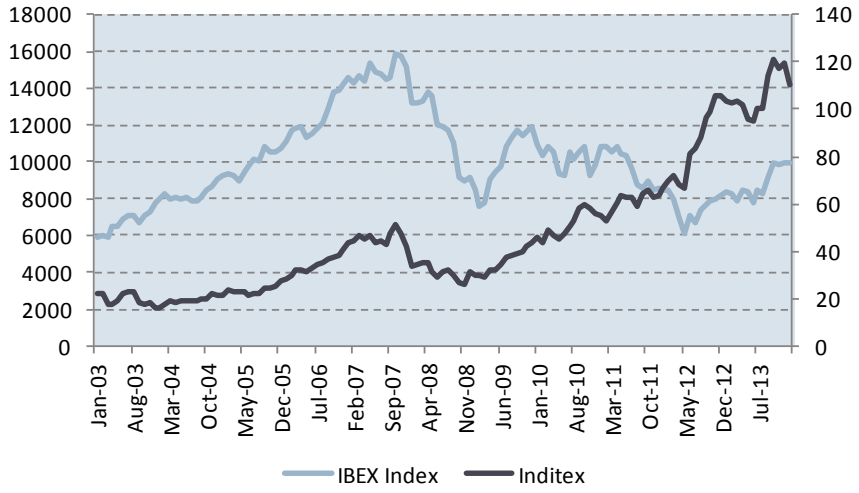
This growth has been supported by the increasing sales share in areas such as Asia and Russia, as well as the increase in online sales.

9.1.10. Stock analysis

In March 2001, Inditex went public through an Initial Public Offering (IPO). Currently, Inditex is trading in the IBEX 35, which is the official Spanish index and comprises its 35 most liquid stocks.

As one can see in Figure 25, the stock price has been growing from January 2003 to August 2007. Nowadays, 70% of Inditex's sales are based in Europe, but this percentage has been decreasing, which means that, before, Inditex's sales in Europe weighted even more. As expected, the stock price reacted to the sovereign crisis starting in 2007 and took a downward turn, taking the company about a year to recover. After that, in 2008, Inditex readjusted its strategy and started growing once more, returning to its share price level prior to the crisis. Unlike Inditex, IBEX has still not recovered from the crisis.

Figure 25 – Inditex's share price and IBEX's performance



Source: Bloomberg

10. Valuation results

10.1. DCF

As previously described in section 2, the final firm value is computed by discounting the forecasted Free Cash Flows to the Firm at the Weighted Cost of Capital, which in the case of Inditex is the same as the cost of equity since the firm presents no debt in its capital structure.

Following what has happened in the past and since I believe that there will likewise be no debt in the firm's structure in the next few years, after analyzing the past and forecasted performance of Inditex, the following section will present a detailed description of the final steps of the DCF computations.

Figure 26 presents the inputs mentioned before that were part of the calculations for the Free Cash Flow to the Firm.

Figure 26– Inditex's Free Cash Flow to the Firm

	2017E	2016E	2015E	2014E	2013E
Sales	26.017.083	23.257.369	20.804.644	18.638.138	16.736.292
Sales Growth	11,87%	11,79%	11,62%	11,36%	4,96%
EBIT	5.340.402	4.904.826	4.268.912	3.718.094	3.071.292
EBIT as margin	21%	21%	21%	20%	18%
Tax Rate	-24%	-24%	-24%	-24%	-21%
- Taxes on EBIT	-1.281.697	-1.177.158	-1.024.539	-892.343	-656.137
+ Depreciation & Amortization	1.414.834	1.287.551	1.171.718	1.066.307	.843.105
+ provisions (Change)	24.239	21.543	19.029	16.704	2.666
- Other non cash items	0	0	0	0	0
Income for the Reversal of provisions	0	0	0	0	0
Income from the reversal of impairment losses and write downs	0	0	0	0	0
= Cash Flow from Operations	**5.497.778**	**5.036.761**	**4.435.120**	**3.908.762**	**3.260.926**
Investment in Working Capital	-1.282.099	-1.167.229	-1.070.640	-983.185	-714.078
Changes in Working Capital	-114.871	-96.589	-87.455	-269.107	113.862
- Capital expenditures	-3.411.443	-2.892.885	-2.453.150	-2.080.258	-1.764.047
= Free cash Flow from operations	**1.971.464**	**2.047.287**	**1.894.515**	**1.559.398**	**1.610.742**
+ Cash flow from non-operational sources	0	0	0	0	0
=FCFF	**1.971.464**	**2.047.287**	**1.894.515**	**1.559.398**	**1.610.742**

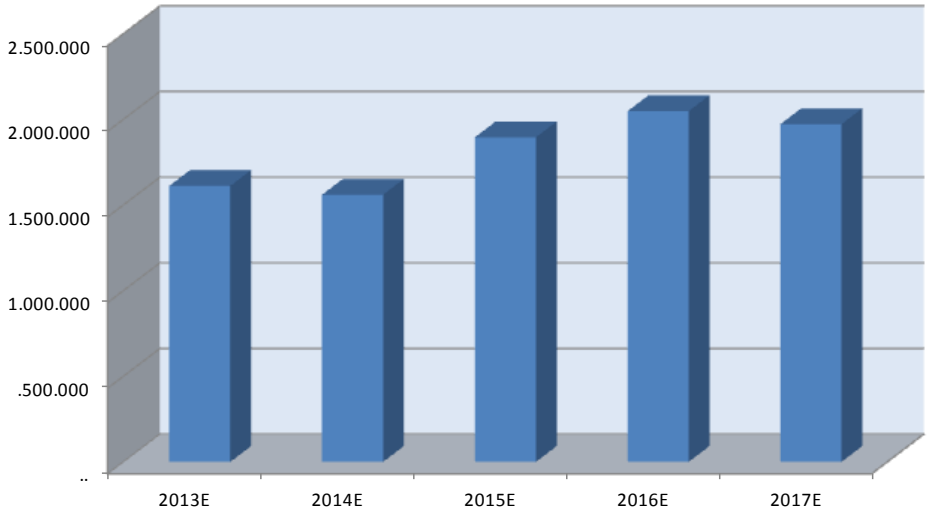
Source: Inditex's annual reports and own analysis

It is possible to verify that, for the forecasted period, the Free Cash Flow to the Firm presents an upward trend. Going in line with Inditex's expansion strategy, Sales growth is also predicted to increase significantly from 2013 to 2017, going from 5% to 12%, approximately. Additionally, investments in capital expenditures will likewise increase and all these factors reflect positively in the FCFF. This positive tendency reflects the potential behind Inditex, namely considering the crisis environment that Europe and the rest of the world will be facing and, possibly, still recovering from in 2017.

After having computed all the necessary inputs and having analyzed how future FCFF will behave, one must compute the Enterprise and Share price.

In order to arrive at an exact and accurate estimation for the value of the firm, a last crucial calculation is necessary - the Terminal Value - which reflects future growth by taking into account historical values. This is computed by dividing the terminal Cash Flow by the difference between the WACC and weighted growth rate by sales, computed by taking into consideration the four main areas of sales of Inditex. Afterwards, the final terminal value comes, thus, from discounting the above mentioned o

Figure 27– Inditex's Free Cash Flow to the Firm growth



Source: Inditex's annual reports and own analysis

Subsequently, and as referred previously, the enterprise value arises from summing both the discounted Free Cash Flows to the Firm to the terminal value.

After arriving at both firm value and share price, I performed a first sensitivity analysis by changing both WACC and the growth rate, two of the crucial inputs in the DCF valuation given that they greatly affect the final outcome of the valuation. Depending on the assumptions taken on these two inputs prior to the calculation of the model, enterprise value and share price will change greatly, which is why it is vital that one analyses how value will change as these assumptions also change. Figure 28 represents the variation of assumed values in the DCF valuation where the base case scenario is in the middle position of both tables and the assumptions are varying between 2.5% and 5%, both positively and negatively.

Figure 28 – Inditex's Firm Value varying wacc and growth rate

wacc/g	4,08%	4,33%	4,58%	4,83%	5,08%
5,99%	74.306.984	84.457.436	98.207.162	117.883.136	148.369.257
6,24%	66.061.995	73.807.941	83.886.906	97.539.794	117.077.195
6,49%	59.526.197	65.622.012	**73.313.533**	83.321.680	96.878.639
6,74%	54.217.701	59.133.018	65.186.103	72.823.707	82.761.698
6,99%	49.820.213	53.862.525	58.743.466	64.754.218	72.338.408

Source: Inditex's annual reports and own analysis

It is possible to see that naturally, as the WACC increases, the enterprise value will decrease, which makes sense since the WACC is the rate at which the Cash Flows are discounted. Similarly, as the growth rate increases also the value of the firm will increase. Using the initial assumptions of the model, which is a growth rate of 4,58% and a WACC of 6,49%, the enterprise value reaches a value of around 73.313.533€.

Given that one of the DCF assumptions was no minorities for the following years, the share price is simply the enterprise value divided by the number of shares. A similar sensitivity analysis to the one performed before, with a varying WACC and growth rate but this time with varying share prices, is presented in Figure 29. One can see that the conclusions are similar and the share prices present a negative relationship as the WACC and a positive relationship as the growth rates vary.

Figure 29 – Inditex's share price varying wacc and growth rate

wacc/g	4,08%	4,33%	4,58%	4,83%	5,08%
5,99%	119,22	135,50	157,56	189,13	238,04
6,24%	105,99	118,41	134,59	156,49	187,83
6,49%	95,50	105,28	**117,62**	133,68	155,43
6,74%	86,98	94,87	104,58	116,84	132,78
6,99%	79,93	86,42	94,25	103,89	116,06

Source: Inditex's annual reports and own analysis

It varies, thus, from the worst scenario of 79.93€/share to the best scenario of 238.04€/share, a range of 158€. Taking into consideration that currently the share price is trading at 106€[15] and my target price is 117.62€/share, my recommendation is clearly to **BUY**.

11. Sensitivity analysis

In this sensitivity analysis I will change some of the main assumptions in the forecasts for the new openings, the LFL (Like-for-like) and the COGS in order to see how the share price varies. I chose to use these variables given, as in the previous section, the significant impact they have on the company's value.

11.1. New openings

Concerning new openings, in the previously carried out valuation, the assumption is currently 9% per year. In this sensitivity analysis and instead of 9% every year, the assumption is for it to grow a further 2.5 percentage points (11.5% per year) or less 2.5 percentage points (6.5% per year). The difference between the maximum and the minimum value is the largest one when considering the sensitivity analysis as a whole. This can be explained by the fact that sales growth is directly influenced by the new openings. Also, it would be expected that once increasing the new openings growth rate, the share price would increase as well, but it did not happen. The fact that the growth rate of the new openings increases, the share price falls is due to the trade-off between the increase in the revenues and the cost associated with capital expenditures. This means that the increase in the revenues is not enough to compensate for the cost of capital expenditures.

[15] At 21/02/2014

11.2. Like-for-like (LFL)

The second change is the other component of the sales forecast – LFL. The LFL forecasts were computed through the GDP weighted by sales. For each year, one percentage point was added or subtracted to the global GDP in order to check the reaction in the share price. Although being the smallest difference, one can see that LFL still has quite an impact in the share price, since the forecasting of the sales is partially based on LFL.

11.3. Cost of Goods Sold (COGS)

Finally, and concerning the COGS as margin of sales, 0.5 percentage points were added and subtracted every year to the base case scenario and subsequently the effect on the share price was verified. One can see in Figure 30 that the share price significantly changes since COGS have a large impact in the company, as mentioned previously.

Figure 30 below shows the different impacts in share price when the different scenarios in each assumption are considered. The new number of stores is evidently the assumption which shows the largest difference. Adding to that, the fact that in the most negative scenarios the share price is quite below my valuation, this means that the BUY recommendation is clearly emphasized.

Figure 30 – Inditex's negative and positive scenarios

	Negative Scenario	Base Case Scenario	Positive Scenario	Difference
Openings	**6,5%**	**9,0%**	**11,5%**	
	161,20	117,62	64,67	96,53
LFL	**-1% per year**		**+1% per year**	
	92,13	117,62	144,92	52,79
COGS	**-0,5% per year**		**+0,5% per year**	
	89,36	117,62	149,66	60,29

Source: Inditex's annual reports and analysis

12. Relative valuation

In the relative valuation I will use the multiples to compare Inditex's fair value to its peers'. The peer group is not only important for the multiples valuation but also for the company strategic position within the industry. As previously mentioned, I will use the multiples Price-to-Earnings (P/E) and the EV/EBITDA, which take into consideration both equity and firm value, respectively. On the one hand, the P/E is widely used and very simple to apply but is affected by earnings, which means one-time events. On the other hand, EV/EBITDA is less vulnerable to capital structure changes, being thus a good compliment to the analysis.

12.1. Peer group

In order to get an accurate peer group I run a cluster analysis with centroids. The first step is to identify the industry and the companies that would face similar risks associated to the economy and the industry; whether or not market segments are similar and also factors like the company's expansion plan or its currency should be accounted for. In this case the industry is the apparel one. Taking into consideration that Inditex is a global company present in several countries, choosing all the companies with similar risks from this industry would mean a huge number of firms to take into consideration. Therefore, I started with the group of companies provided by Bloomberg as Inditex's peers, which are sixteen companies. Within this group the companies would be chosen by means of four different parameters: Return On Equity (ROE), Revenues year on year, WACC and Total Debt-to-Current Value. These parameters were chosen according to Damadoran's statement that these should reflect potential growth, risk, and cash flows.

Running the cluster analysis through the different parameters I was able to identify Inditex's peer group: Hennes & Mauritz (H&M), Esprit Holdings, Mulberry Group, Coach and Urban Outfitters.

12.2. Multiples valuation

After establishing the peer group and using an average weighted by the market capitalization of each competitor of the peer group, both enterprise and share price were computed. One can see that the range of the PER is quite large and both the EV/EBITDA multiples are below the DCF valuation. This is due to the fact that the quality of the peer group is not the best and H&M would be the only truly comparable company of Inditex. This difference arises also from the fact that Inditex has its own business model, which is quite different from its peers.

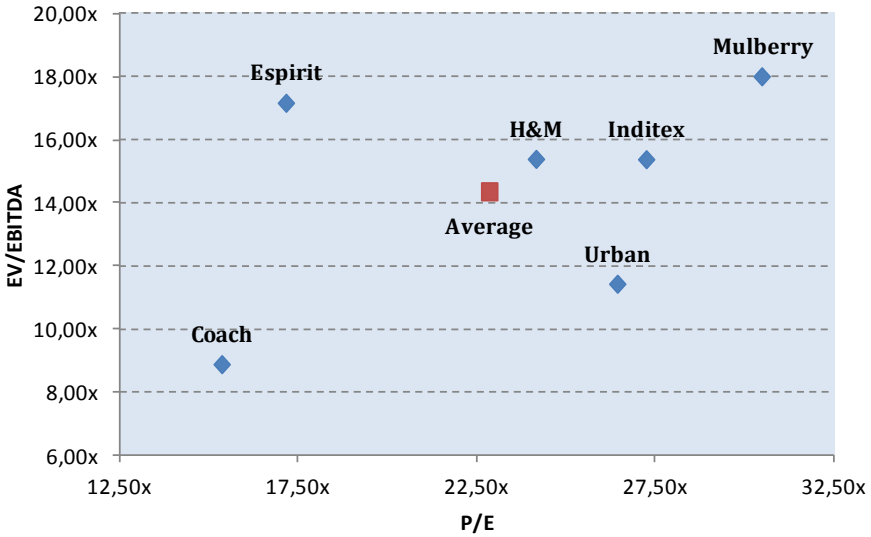
Figure 31 – Inditex's peer group and multiples

	P/E		EV/EBITDA	
	2013	**2014**	**2013**	**2014**
Inditex	27,25x	26,62x	15,36x	15,41x
Hennes & Mauritz	24,16x	24,47x	15,37x	13,65x
Espirit Holdings	17,15x	170,70x	17,15x	20,50x
Mulberry Group	30,49x	25,90x	17,99x	14,80x
Coach	15,35x	15,34x	8,86x	8,51x
Urban Outfitters	26,44x	19,48x	11,41x	8,19x
Mean	22,85	28,53	14,34	12,91
EV	54.805.233	76.469.806	56.143.817	59.118.994
Share Price	87,93	122,69	90,08	94,85

Source: Bloomberg and own analysis

After reaching the average weighted by the peers' market capitalization and multiplying the PER by the Net Profit and the EV/EBITDA by EBITDA, I obtained the Enterprise value.

Figure 32 – P/E and EV/EBITDA 2013 multiples of Inditex and its peers



Source: Bloomberg and own analysis

Starting with the PER multiple, a considerable difference in the share price is visible from 2013 to 2014. Despite this fact, the target price achieved before with the DCF methodology falls within this range. On the other hand, the EV/EBITDA multiple results show that the share price should vary from 90.08€ to 94.85€ from 2013 to 2014. Figure 32 represents the peer group results as well as its average. It is possible to verify that while the average value lies around a P/E of 22.5x, and a EV/EBITDA multiples of 14x there is not a consistent result among the peer companies chosen. H&M is the closest company to both peers' average and Inditex itself, reflecting again which was previously mentioned to what concerns the quality of the chosen representatives of the apparel industry.

13. Value at Risk (VAR)

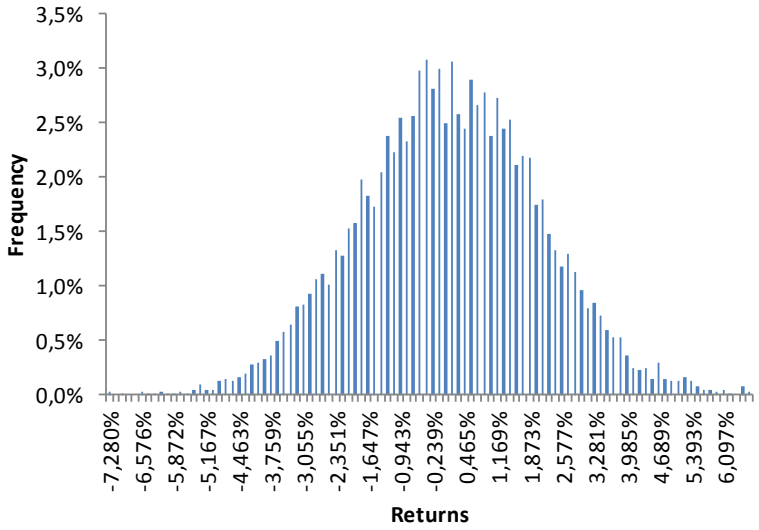
The Value at Risk (VAR) is a broadly used risk measure to identify a company's potential financial risk within a time horizon. It measures the potential loss for a given confidence interval. This model measures the amount of the potential loss, the probability of the loss and the time that the loss can happen. The main assumption of this model is that the current risk of the company will remain constant in the future.

This methodology was based on a Monte Carlo Simulation, using the company's returns at a daily frequency since 2001. In order to run this analysis, I had to use the random generator function, with an average of 0.07% and a standard deviation of 1.96%. I believe that 10.000 simulations is a large enough

number to obtain reliable results. As shown in Figure 33 below, the returns follow a normal distribution.

As a consequence, and by ranking the returns from lowest to highest, I achieved the conclusion of -4.45%, -3.18%, and -2.48% in the share price for 99%, 95%, and 90% probabilities, respectively. As a result, it can be concluded that there is a 1% probability of the share price to fall 4.45%, a 5% probability of falling 3.18% and a 10% probability of falling 2.48%. This means that there is a 1% probability of the share price going down by 1% and, therefore, reaching a value of 112.4€/share, which is, however, still above its market value, making my recommendation to remain at the buy side.

Figure 33 – Inditex's VAR



Source: Bloomberg and own analysis

14. Comparison with Investment Bank report

The goal of this section is to validate the consistency of the result of the main valuation performed. The investment bank chosen is Citibank and the report is from February the 18th, 2014. Both the report and the investment bank were chosen since it is the most recent available report on Inditex until the date of my valuation.

Citibank used its forecasts until 2023, which means an explicit period of 10 years. Comparing to my own valuation, which is until 2017, the explicit period is quite large, and in order to have a coherent reasoning, only the years in common will be taken into consideration. This means that the considered period will be from 2013 until 2017.

Citibank's report is based on two main methodologies: DCF and Multiples. Likewise, I used the same valuation methods, however the relative valuation was made in an auxiliary perspective and not as the

main perspective. As a consequence, the results are expected to be somewhat different from the ones in the Citibank's report.

The Citibank's target price is 120€, which is a downgrading from their previous report (January 24th) – 130€. This downgrading was not only in the price, but also in the recommendation, which currently is NEUTRAL (from BUY). This recommendation was downgraded due to unexpected currency movements, a previously mentioned crucial driver of Inditex's sales and, as a consequence, its own value.

Although the Sales in my valuation are slightly higher than the ones from the Investment Bank report, the COGS, amortizations, and capital expenditures are considerably higher, which decreases the valuation as a whole. This is mainly due to the fact that in the Sales growth assumptions, Citibank assumed a higher LFL and much lower space growth, than the one assumed in this dissertation. This means that Citibank is assuming that Inditex's sales are going to grow much more due to both GDP and inflation than the store space. This is not, in my opinion, consistent with the company's historical performance.

Figure 34 – Inditex's LFL and Space Contribution

		2016E	2015E	2014E	2013E
LFL	**Thesis**	2,56%	2,41%	2,17%	1,61%
	Citibank	3,5%	1,8%	-1,2%	8,1%
Space Contribution	**Thesis**	9,0%	9,0%	9,0%	9,0%
	Citibank	7,2%	7,0%	6,0%	7,5%

Source: Inditex's annual reports, Citibank's report, IMF data, and own analysis

On the other hand, since I believe that sales are going to grow more due to the space growth than to the LFL, which means that both capital expenditures and amortizations will be higher and therefore lower the overall valuation of the company.

Figure 35 – Inditex's comparison with an IB report

		2017E	2016E	2015E	2014E	2013E
Sales	**Thesis**	26.017.083	23.257.369	20.804.644	18.638.138	16.736.292
	Citibank	22.184.000	20.131.000	18.181.000	16.702.000	15.946.000
COGS	**Thesis**	9.886.491	8.915.411	8.072.574	7.320.238	6.838.608
	Citibank	9.428.000	8.192.000	7.398.000	6.795.000	6.417.000
EBIT	**Thesis**	5.340.402	4.904.826	4.268.912	3.718.094	3.071.292
	Citibank	4.160.000	3.775.000	3.345.000	3.044.000	3.117.000
EBIT % sales	**Thesis**	20,53%	21,09%	20,52%	19,95%	18,35%
	Citibank	18,75%	18,75%	18,40%	18,23%	19,55%
Amortizations	**Thesis**	1.414.834	1.287.551	1.171.718	1.066.307	843.105
	Citibank	1.057.000	986.000	904.000	836.000	796.000
Capital Expenditures	**Thesis**	-3.411.443	-2.892.885	-2.453.150	-2.080.258	-1.764.047
	Citibank	-1.621.000	-1.513.000	-1.375.000	-1.250.000	-1.193.000

Source: Inditex's annual reports, Citibank's report, IMF data, and own analysis

Apart from the DCF, Citibank also uses the relative valuation. The investment bank makes an extensive valuation using quite a large number of multiples from 2011 until 2016, while in my valuation only the PER and EV/EBITDA from 2013 and 2014 are taken into consideration. Once again and in order to make this comparison reliable, I will only compare the common multiples.

Figure 36 – Inditex's multiples comparison with an IB report

		Year	Multiples
PER	**Thesis**	2013	22,8
		2014	28,5
	Citibank	2013	29,0
		2014	29,1
EV/EBITDA	**Thesis**	2013	14,3
		2014	12,9
	Citibank	2013	16,5
		2014	16,5

Source: Bloomberg, Citibank's report, and own analysis

One can see that all the multiples used by Citibank are higher than the ones in my valuation. This difference can reside either in the choice of the peer group or even if they used a harmonic mean or an average weighted by the market capitalization of each peer.

15. Conclusion

In this dissertation I made an effort to give an overview of the various methods used to evaluate companies. Although there is a large number of valuation methods available today, I focused my analysis on the two most important methods: DCF and relative valuation. In order to get an accurate analysis, the assumptions are a crucial step in this process, meaning that a slight change would deliver a completely different value. Furthermore, all the external factors should be taken into consideration, such as the economic outlook. Moreover, the level and quality of information needed is an essential input to get an exact fair value. As Inditex is a listed company I was able to get all the necessary information to realize a precise valuation.

Inditex has been performing above the average during the last years, even in crisis periods, which can be explained by a few factors: different market segments, different age groups, portfolio diversification with different brands, own and very special business model, and emphasis on the international investment.

From my DCF model I achieved a share price of 117.62€, which is above the current[16] value of the company (106€) and below Citibank's target price of 120€ per share. It clearly shows that the stock price is undervalued. My valuation was based on discounting the forecasted cash flows at the Weighted

[16] 21/02/2014

Average Cost of Capital. Since the company presents an insignificant debt level, I assumed zero debt in the capital structure for the forecasted period.

Finally, I strongly believe that Inditex has a huge growth potential and since the stock price is currently undervalued, it is a company to take into consideration and a good investment opportunity.

16. Annexes

16.1. Historical Income Statement, Balance Sheet, and Cash Flow Statement

(in thousands of euros)	2012	2011	2010	2009	2008	2007	2006	2005
Net Sales	15.946.143	13.792.612	12.526.595	11.083.514	10.406.960	9.434.670	8.196.265	6.740.826
Growth	15,61%	10,11%	13,02%	6,50%	10,31%	15,11%	21,59%	18,88%
Cost of Merchandise	-6.416.825	-5.612.216	-5.104.573	-4.755.505	-4.492.720	-4.085.959	-3.589.276	-2.953.073
Growth	14,34%	9,94%	7,34%	5,85%	9,96%	13,84%	21,54%	12,02%
Gross Profit	9.529.318	8.180.396	7.422.022	6.328.009	5.914.240	5.348.711	4.606.989	3.787.753
Gross Profit margin	59,76%	59,31%	59,25%	57,09%	56,83%	56,69%	56,21%	56,19%
Operating expenses	-5.604.783	-4.919.328	-4.452.211	-3.952.702	-3.707.887	-3.226.369	-2.800.243	-2.296.759
Growth	13,93%	10,49%	12,64%	6,60%	14,92%	15,22%	21,92%	27,99%
Other expenses and income, net	-11.578	-3.396	-3.604	-1.118	-19.497	26.501	-17.060	-31.672
Gross operating profit (EBITDA)	3.912.957	3.257.672	2.966.207	2.374.189	2.186.856	2.148.843	1.789.686	1.459.322
Growth	20,12%	9,83%	24,94%	8,57%	1,77%	20,07%	22,64%	17,72%
Amortization and depreciation	-796.117	-735.666	-675.738	-645.801	-578.320	-496.663	-433.427	-365.730
Net operating profit (EBIT)	3.116.840	2.522.006	2.290.469	1.728.388	1.608.536	1.652.180	1.356.259	1.093.592
Growth	23,59%	10,11%	32,52%	7,45%	-2,64%	21,82%	24,02%	18,20%
Financial results								
Interest income	23.762	30.237	21.026	8.368	26.067	20.602	20.789	24.729
Foreign exchange gains	17.775	24.315	21.909	37.172	20.075	15.280	0	4.245
Dividends		147	231	311	177	144	0	0
Total revenues	41.537	54.699	43.166	45.851	46.319	36.026	20.789	28.974
Interest expenses	-2.849	-3.672	-3.561	-9.428	-9.372	-4.658	0	0
Other finance costs	-7.671	-10.186	0	0	0	0	-17.272	-20.928
Foreign exchange losses	-16.888	-3.835	-8.489	-32.641	-58.546	-28.836	-17.552	0
Changes in fair value of financial instruments	0	0	0	0	0	-1568	0	0
Total expenses	-27.408	-17.693	-12.050	-42.069	-67.918	-35.062	-34.824	-20.928
Total (Financial results)	14.129	37.006	31.116	3.782	-21.599	964	-14.035	8.046
Equity accounting losses	0	0	0	0	0	-7.508	-2.786	-192
Profit before taxes	3.130.969	2.559.012	2.321.585	1.732.170	1.586.937	1.645.636	1.339.438	1.101.446
Growth	22,35%	10,23%	34,03%	9,15%	-3,57%	22,86%	21,61%	24,29%
Income tax	-763.956	-613.480	-580.305	-410.033	-325.322	-387.872	-329.502	-290.583
Tax Rate	-24,40%	-23,97%	-25,00%	-23,67%	-20,50%	-23,57%	-24,60%	-26,38%
Minorities	0	0	0	0	0	0	0	0
Net profit	2.367.013	1.945.532	1.741.280	1.322.137	1.261.615	1.257.764	1.009.936	810.863
Earnings per share	378,7	310	277,9	211,4	202	201	161	129

Source: Inditex's annual reports

(in thousands of euros)	2012	2011	2010	2009	2008	2007	2006	2005
Assets								
Current assets	**6.692.150**	**5.437.289**	**5.202.512**	**3.943.795**	**3.264.041**	**2.981.595**	**2.148.332**	**2.046.612**
Cash and equivalents	3.842.918	3.466.752	3.433.452	2.420.110	1.466.291	1.465.835	906.148	988.405
Current financial investments	260.632	0	0	0	0	0	0	0
Trade and other receivables	847.608	531.048	481.844	421.781	585.311	463.716	363.635	327.322
Inventories	1.581.297	1.277.009	1.214.623	992.570	1.054.840	1.007.213	823.903	684.392
Other financial assets	7.831	50.684	0	0	0	0	0	0
Income tax receivable	58.936	17.235	16.958	15.663	15.342	1.719	20.870	30.609
Other current assets	92.928	94.561	55.635	93.671	142.257	43.112	33.776	15.884
Non-current assets	**6.198.166**	**5.521.889**	**4.623.568**	**4.391.642**	**4.512.605**	**4.124.007**	**3.593.830**	**3.156.251**
Property, plant and equipment	4.662.407	4.063.066	3.397.083	3.293.535	3.442.321	3.182.112	2.788.816	2.410.032
Investment property	82.567	19.807	17.354	13.273	8.455	9.475	11.851	14.227
Rights over leased assets	487.474	499.960	526.306	514.159	531.468	504.604	454.196	410.690
Other intangible assets	125.326	114.148	29.444	19.118	16.476	13.344	15.220	9.269
Goodwill	207.089	218.094	131.685	131.685	131.685	125.583	98.992	79.094
Financial investments	3.992	9.501	8.921	15.392	14.416	36.174	33.375	61.021
Investments in associates	0	0	0	0	0	0	4.446	7.040
Deferred tax assets	382.554	356.372	299.350	234.203	203.100	133.020	88.851	77.716
Other non-current assets	246.757	240.941	213.425	170.277	164.684	119.695	98.083	87.162
Total assets	**12.890.316**	**10.959.178**	**9.826.080**	**8.335.437**	**7.776.646**	**7.105.602**	**5.742.162**	**5.202.863**
Liabilities and equity								
Current liabilities	**3.485.064**	**2.702.774**	**2.674.907**	**2.304.960**	**2.390.848**	**2.458.067**	**1.884.741**	**1.850.828**
Trade and other payables	3.243.281	2.475.140	2.458.857	2.103.029	2.073.141	1.975.251	1.618.825	1.509.526
Financial debt	2.437	686	2.682	35.058	234.037	371.276	145.077	209.192
Other financial liabilities	73.918	22.880	0	0	0	0	0	0
Income tax payable	165.428	204.068	213.368	166.873	83.670	111.540	120.839	132.110
Non-current liabilities	**923.391**	**800.827**	**728.005**	**659.931**	**637.198**	**430.484**	**386.817**	**431.162**
Financial debt	4.306	1.544	4.172	4.996	13.241	42.358	47.314	76.099
Deferred tax liabilities	191.654	182.531	172.648	172.892	213.847	110.957	104.319	106.735
Provisions	144.331	147.318	156.610	127.054	101.820	47.681	45.114	41.965
Other non-current liabilities	583.100	469.434	394.575	354.989	308.290	229.488	190.070	206.363
Equity	**8.481.861**	**7.455.577**	**6.423.167**	**5.370.546**	**4.748.600**	**4.217.051**	**3.470.604**	**2.920.873**
Equity attributable to the parent	8.445.936	7.414.806	6.386.183	5.329.166	4.721.714	4.193.129	3.448.377	2.898.878
Equity attributable to non-controlling interests	35.925	40.771	36.984	41.380	26.886	23.922	22.227	21.995
Total equity and liabilities	**12.890.316**	**10.959.178**	**9.826.079**	**8.335.437**	**7.776.646**	**7.105.602**	**5.742.162**	**5.202.863**

Source: Inditex's annual reports

(in thousands of euros)	2012	2011	2010	2009	2008	2007	2006	2005
Profit before taxes and non-controlling interests	**3.130.969**	**2.559.012**	**2.321.585**	**1.732.170**	**1.586.937**	**1.645.636**	**1.339.438**	**1.101.446**
Adjustments to profit								
Amortization and depreciation	810.802	692.621	636.281	624.711	578.320	496.663	433.427	366.801
Foreign exchange translation differences	-14.291	-29.218	-29.681	30.665	-11.097	1.837	271	2.887
Provisions for impariment	48.714	41.181	61.175	53.087	0	0	0	0
Gains on fixed assets disposals	0	0	0	0	0	0	0	0
Losses on fixed assets disposals	0	0	0	0	0	0	0	0
Income (loss) attributted to minority interest	0	0	0	0	0	0	0	0
Deferred tax assets and liabilities	0	0	0	0	35.253	-38.465	-13.285	293
Other	97.584	42.437	58.601	10.074	-14.022	39.388	61.335	59.481
Income tax	**-818.160**	**-693.201**	**-508.000**	**-391.059**	**-325.322**	**-387.872**	**-329.502**	**-290.583**
Funds from operations	**3.255.618**	**2.612.832**	**2.539.961**	**2.059.648**	**1.850.069**	**1.757.187**	**1.491.684**	**1.240.325**
Variation in assets and liabilites								
Inventories	-376.272	-56.663	-227.080	48.466	-60.736	-197.485	-135.457	-164.161
Receivables and other current assets	-289.198	-80.100	-119.680	162.750	-157.425	-87.608	-51.312	-69.544
Current payables	528.803	-67.408	363.011	49.983	143.268	345.408	92.426	414.076
Changes in working capital	**-136.667**	**-204.171**	**16.251**	**261.199**	**-74.893**	**60.315**	**-94.343**	**180.371**
Cash flow from operating operations	**3.118.951**	**2.408.661**	**2.556.212**	**2.320.847**	**1.775.176**	**1.817.502**	**1.397.341**	**1.420.696**
Investments in intangible assets	-122.362	-121.807	-74.190	-26.898	-78.068	-87.697	-79.101	-81.736
Investments in property, plant, and equipment	-1.192.590	-1.081.867	-616.551	-460.995	-851.973	-850.109	-783.598	-701.909
Acquisition on investments in companies	0	-105.718	0	0	-6.102	-7.147	-28.688	-14.002
Acquisition of other financial investments	0	-12.597	-25.845	378	21.758	-10.307	-6.114	-3.735
Investments in other assets	-23.908	-26.747	-37.294	-12.590	-23.643	-26.572	-16.094	-27.576
Changes in current financial investments	-260.632	0	0	0	0	0	0	0
Fixed assets sales and retirements	0	0	0	-9.645	0	0	0	0
Proceeds from sales of assets and collections of other non-current assets	0	0	0	0	679	9.536	26.560	17.078
Disposals of entities	0	0	0	0	0	30.712	0	0
Capital Expenditures	**-1.453.222**	**-1.200.182**	**-642.396**	**-460.617**	**-836.317**	**-867.563**	**-818.400**	**-719.646**
Collections/(Payments) relating to non-current financial debt	3.913	-23.223	-824	-3.520	-28.644	-16.513	-28.226	-25.698
Collections/(Payments) relating to non-current non-financial debt	0	-107	-33.455	10.519	11.366	15.763	-67.143	-97.939
Increase in long term debt	0	0	0		0	0	0	0
Decrease in long term financial debt	0	0	0	0	0	0	0	0
Net increase in other long term debt	0	0	0	0	0	0		0
Collections/(Payments) relating to current financial debt	750	-14.212	-32.459	-203.777	-137.385	214.514	-64.115	26.090
Dividends	-1.129.769	-1.003.877	-751.357	-662.090	-661.566	-521.291	-417.632	-301.809
Other financing activities	0	617	-667	316	-1.997	518	0	497
Cash flows used in financing activities	**-1.125.106**	**-1.040.802**	**-818.762**	**-858.552**	**-818.226**	**-307.009**	**-577.116**	**-398.859**
Net increase in cash and cash equivalents	394.355	19.122	983.573	952.545	19.599	568.290	-66.810	209.957
Cash and cash equivalents at the beginning of the year	3.466.752	3.433.452	2.420.110	1.466.291	1.465.835	906.148	988.405	771.842
Effect of exchange rate fluctuations on cash and cash equivalents	-18.190	14.178	29.769	1.274	-19.142	-8.603	-15.446	6.606
Cash and cash equivalents at the end of the year	**3.842.917**	**3.466.752**	**3.433.452**	**2.420.110**	**1.466.292**	**1.465.835**	**906.149**	**988.405**

Source: Inditex's annual reports

16.2. Income Statement Forecast

(in thousands of euros)	2017E	2016E	2015E	2014E	2013E
Net Sales	26.017.083	23.257.369	20.804.644	18.638.138	16.736.292
Growth	11,87%	11,79%	11,62%	11,36%	4,96%
Cost of Merchandise	-9.886.491	-8.915.411	-8.072.574	-7.320.238	-6.838.608
Growth					
Gross Profit	16.130.591	14.341.957	12.732.070	11.317.900	9.897.684
Gross Profit margin	62,00%	61,67%	61,20%	60,72%	59,14%
Operating expenses	-9.105.979	-8.140.079	-7.281.625	-6.523.348	-5.981.633
Growth					
Other expenses and income, net	-269.377	-9.502	-9.814	-10.151	-1.654
Gross operating profit (EBITDA)	6.755.236	6.192.377	5.440.631	4.784.401	3.914.397
Growth					
Amortization and depreciation	-1.414.834	-1.287.551	-1.171.718	-1.066.307	-843.105
Net operating profit (EBIT)	5.340.402	4.904.826	4.268.912	3.718.094	3.071.292
Growth					
Financial results					
Interest income	24.032	22.072	20.423	20.777	20.046
Foreign exchange gains	40.087	34.849	28.709	23.667	18.505
Dividends	147	147	147	147	147
Total revenues	64.266	57.068	49.279	44.591	38.698
Interest expenses	0	0	0	0	0
Other finance costs	0	0	0	0	0
Foreign exchange losses	-74.777	-56.800	-40.886	-29.452	-20.121
Changes in fair value of financial instruments	0	0	0	0	0
Total expenses	-74.777	-56.800	-40.886	-29.452	-20.121
Total (Financial results)	-10.511	267	8.393	15.139	-21.194
Equity accounting losses	0	0	0	0	0
Profit before taxes	5.329.891	4.905.093	4.277.305	3.733.233	3.050.099
Growth					
Income tax	-1.279.174	-1.177.222	-1.026.553	-895.976	-651.610
Tax Rate	-24,00%	-24,00%	-24,00%	-24,00%	-21,36%
Minorities	0	0	0	0	0
Net profit	4.050.717	3.727.871	3.250.752	2.837.257	2.398.489
Earnings per share					383,0

Source: Inditex's annual reports and own analysis

16.3. DCF Forecast

	2017E	2016E	2015E	2014E	2013E
EBIT	5.340.402	4.904.826	4.268.912	3.718.094	3.071.292
Tax Rate	-24,00%	-24,00%	-24,00%	-24,00%	-21,36%
- Taxes on EBIT	-1.281.697	-1.177.158	-1.024.539	-892.343	-656.137
+ Depreciation & Amortization	-1.414.834	-1.287.551	-1.171.718	-1.066.307	-843.105
+ provisions (Change)	24.239	21.543	19.029	16.704	2.666
- Other non cash items	0	0	0	0	0
Income for the Reversal of provisions	0	0	0	0	0
Income from the reversal of impairment losses and write downs	0	0	0	0	0
= Cash Flow from Operations	**5.497.778**	**5.036.761**	**4.435.120**	**3.908.762**	**3.260.926**
Investment in Working Capital	-1.282.099	-1.167.229	-1.070.640	-983.185	-714.078
Changes in Working Capital	-114.871	-96.589	-87.455	-269.107	113.862
- Capital expenditures	-3.411.443	-2.892.885	-2.453.150	-2.080.258	-1.764.047
= Free cash Flow from operations	**1.971.464**	**2.047.287**	**1.894.515**	**1.559.398**	**1.610.742**
+ Cash flow from non-operational sources	0	0	0	0	0
=FCFF	**1.971.464**	**2.047.287**	**1.894.515**	**1.559.398**	**1.610.742**

Source: Inditex's annual reports and own analysis

	2017E	2016E	2015E	2014E	2013E
Discount rate	1,286047274	1,207654489	1,134040244	1,064913256	1
FCF/Discount rate	1532963,884	1695259,055	1670589,143	1464342,4	1610741,558
NPV	8.048.642,98 €				
Terminal value	65264890,37				
	73.313.533,35 €				
FV/Share	117,62 €				

Source: Inditex's annual reports and own analysis

16.4. Peer group – Centroids allocation

	Distance to 1	Distance to 2	Distance to 3	Minimum	Allocation	
INDITEX	1,035094886	2,539261344	1,494664356	1,035094886	Centroid I	DONE
HENNES & MAURITZ AB-B SHS	0,999951986	1,612956913	1,780218654	0,999951986	Centroid I	DONE
NEXT PLC	4,193125153	2,178587667	4,020419951	2,178587667	Centroid II	DONE
SPORTS DIRECT INTERNATIONAL	2,494877761	1,950236387	1,407623558	1,407623558	Centroid III	DONE
BROWN (N) GROUP PLC	3,354192681	3,062674591	2,417421382	2,417421382	Centroid III	DONE
ESPRIT HOLDINGS LTD	1,94118141	3,456234374	3,054325969	1,94118141	Centroid I	DONE
MULBERRY GROUP PLC	0,910937074	2,85333891	2,310330274	0,910937074	Centroid I	DONE
FAST RETAILING CO LTD	1,599980877	2,75007439	1,298624202	1,298624202	Centroid III	DONE
TJX COMPANIES INC	1,721422969	0,947129657	1,642480507	0,947129657	Centroid II	DONE
GAP INC/THE	1,60769704	1,768128939	0,995681491	0,995681491	Centroid III	DONE
COACH INC	0,527063023	1,92845389	1,746600091	0,527063023	Centroid I	DONE
ROSS STORES INC	1,424378921	1,279688064	1,692811152	1,279688064	Centroid II	DONE
LULULEMON ATHLETICA INC	3,385732617	4,403442484	2,946643686	2,946643686	Centroid III	DONE
URBAN OUTFITTERS INC	0,698548843	2,273031557	1,48024598	0,698548843	Centroid I	DONE

Source: Bloomberg and own analysis

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